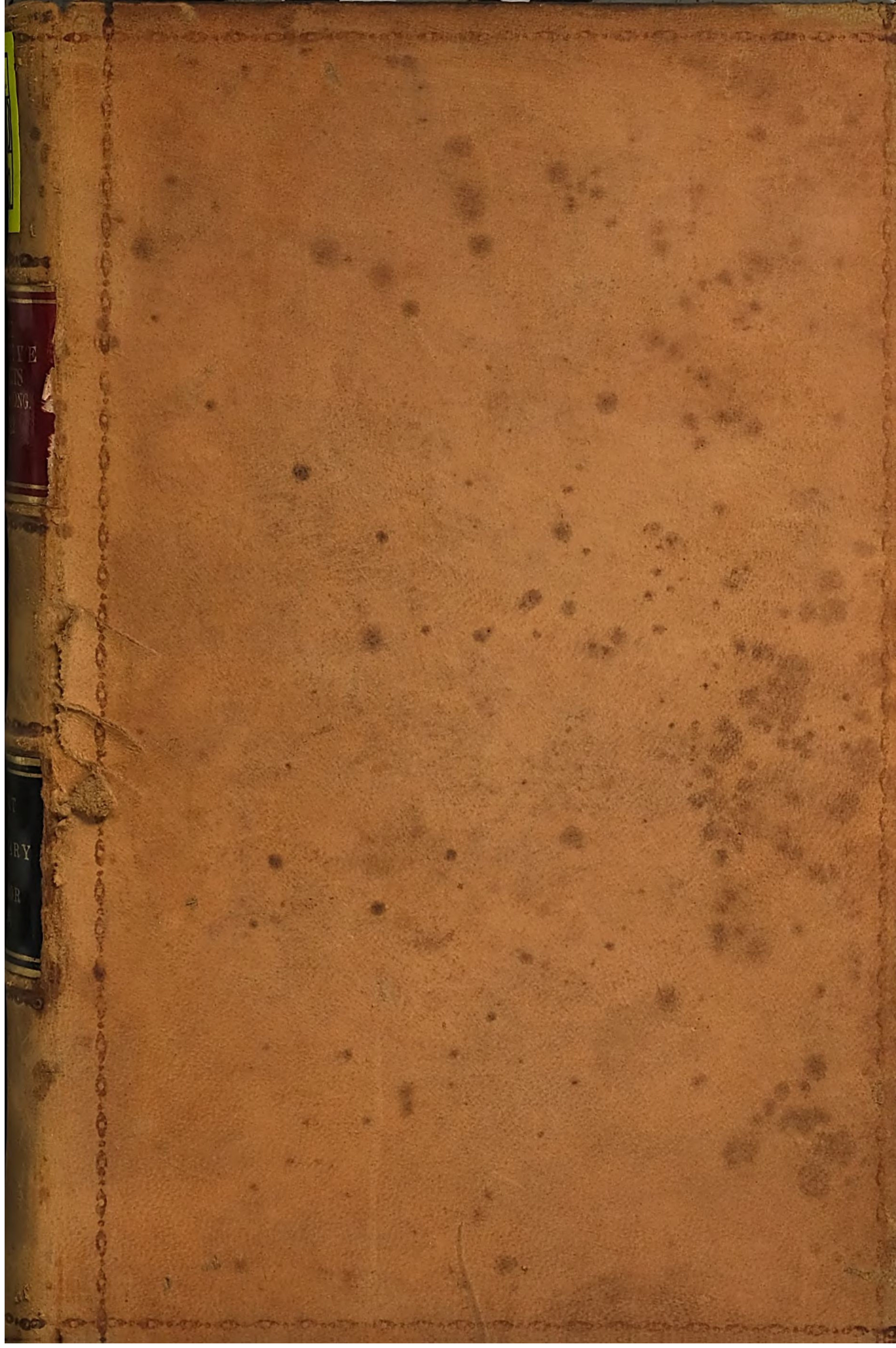




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HOUSE OF REPRESENTATIVES

FOR THE
FIRST SESSION OF THE FIFTY-SECOND CONGRESS.

1891-'92.

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52D CONGRESS, } HOUSE OF REPRESENTATIVES. { Ex. Doc. 1,
1st Session. } Part 5.

REPORT

OF THE

SECRETARY OF THE INTERIOR;

BEING PART OF

THE MESSAGE AND DOCUMENTS

COMMUNICATED TO THE

TWO HOUSES OF CONGRESS

AT THE

BEGINNING OF THE FIRST SESSION OF THE FIFTY-SECOND CONGRESS.

IN FIVE VOLUMES.

VOLUME III.

WASHINGTON:
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1892.

THE SECRETARY OF THE INTERIOR
WASHINGTON, D. C.

REPORT

SECRETARY OF THE INTERIOR

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THE SECRETARY OF THE INTERIOR
WASHINGTON, D. C.

REPORT

OF

THE COMMISSIONER OF PENSIONS.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 22, 1891.

SIR: I have the honor to submit herewith a number of tables which set forth in succinct form certain business operations of this Bureau during the fiscal year ended June 30, 1891.

There were on June 30, 1891, 676,160 pensioners borne upon the rolls, being 138,216 more than were carried on the rolls at the close of the last fiscal year, and classified as follows:

Widows and daughters of Revolutionary soldiers.....	23
Army invalid pensioners	413,597
Army widows, minor children, etc.....	108,537
Navy invalid pensioners	5,449
Navy widows, minor children, etc	2,568
Survivors of the war of 1812.....	284
Widows of soldiers of the war of 1812.....	7,590
Survivors of the Mexican war.....	16,379
Widows of soldiers of Mexican war.....	6,976
Act of June 27, 1890:	
Army invalid pensioners	97,136
Army widows, minor children, etc.....	12,209
Navy invalid pensioners	3,976
Navy widows, minor children, etc.....	1,436

During the fiscal year first payments were made upon 131,160 original claims. These claims required \$31,391,538.75 for their payment.

During the year first payments were made upon 64,532 original claims more than the year previous at an aggregate cost of \$1,087,302 less.

There were 222,521 first payments of every description, requiring \$38,552,274.31, being \$69,592 less than was required for the 130,514 first payments made during the last fiscal year.

The average value of first payments made during the fiscal year ended June 30, 1891, was \$239.33, and the average value of first

payments on claims allowed under the act of June 27, 1890, was \$71.28. The average value of first payments for the preceding year was \$485.71, being a reduction in the average first payments for the year 1891, as compared with the fiscal year 1890, of \$246.38.

The aggregate annual value of the 676,160 pensions on the roll June 30, 1891, was \$89,247,200.20, and the average annual value of each pension on the roll at the close of the fiscal year was \$131.99, and the average annual value of each pension on the roll under the act of June 27, 1890, was \$121.51.

At the close of the fiscal year there were 38,574 pensioners on the roll who remained unpaid for want of time, and who were entitled to receive \$4,883,242.64, which will be paid out of the appropriation for the fiscal year beginning July 1, 1891; and there remained at the close of the fiscal year in the hands of the several pension agents the sum of \$5,713,852.84 of the pension fund which has not been paid out, and which has been turned into the Treasury. This amount added to \$3,607,133.22 of the pension appropriation not drawn from the Treasury aggregates \$9,320,986.06 of the appropriation which was not expended.

There will be a deficiency in the appropriation for the payment of fees and expenses of examining surgeons of about \$400,000. The amount of the accounts remaining unpaid will be ascertained, and an estimate made for the necessary money to cover the same.

The total amount of money disbursed on account of pensions, expenses, etc., during the fiscal year, was \$118,548,959.71, as compared with \$106,493,890.19 disbursed during the preceding fiscal year; so it appears that 138,216 pensioners were added to the rolls during the fiscal year just closed, at an increased cost to the nation of only \$12,055,069.52, as compared with the expenditures for the previous fiscal year, and said expenditure includes \$4,357,347.30 paid upon vouchers remaining unpaid at the close of the fiscal year June 30, 1890.

Pension certificates were issued during the four fiscal years last past as follows:

1888	113, 173
1889	145, 298
1890	151, 658
1891	250, 565

LAND WARRANTS.

During the past fiscal year there were issued 85 original and duplicate military land warrants for 8,600 acres of land.

CONDUCT OF BUSINESS.

In the conduct of the business for the past year, in addition to the adjudication of completed cases, it has been a prime object to put as many cases as possible in train for completion.

With this end in view 603,641 orders were made for medical exami-

nations, and 474,680 medical certificates of examinations were actually received. Three hundred and forty-five thousand eight hundred and sixty-seven reports from the War Department were received, giving the military and medical history in as many claims, and calls were made in 812,072 cases for evidence to complete them.

The regulations in regard to the required proof in claims filed under the act of June 27, 1890, were drafted with the view of giving plain and accurate information as to what is required to establish a claim, so as to avoid the necessity of constantly giving the status of cases to claimants and their attorneys, who are supposed to keep the run of the evidence forwarded to the Bureau.

It will be understood from the foregoing figures of work done, and the statements in this report of the large receipt of evidence, that there are a great number of claims in the process of early completion.

The rule of the office is to dispose of completed cases at the earliest practical moment. Under this rule cases will be taken up for final action whether the claimant is represented by an attorney or not, if the office is informed that the case is complete. If, however, upon an examination of the claim it appears that calls for evidence made by the office have not been answered, the person making the erroneous statement of the completion of his case will not be allowed to secure an advancement of his claim by reason of the misstatement.

The important thing for every claimant to do is to furnish the evidence required to prove his claim without waiting to be called upon for it by the office. In such cases if a medical examination is necessary to complete the case, all the other evidence being in, an order for such an examination will be issued at once upon application.

WIDOWS AND DAUGHTERS OF THE SOLDIERS OF THE REVOLUTION.

With a feeling of reverence I invite your attention to the list of Revolutionary pensioners, consisting of 20 widows and 3 daughters of soldiers of the Revolution.

These venerable persons represent the dead heroes of that great struggle which established constitutional liberty in America, and their names, with the survivors of the war for the Union, connect the two great events in the history of the Republic: its creation and preservation.

In 1870 there were 727 widows of Revolutionary soldiers on the pension rolls. In a few years more the small remnant remaining will have passed away.

I invite your attention to the annexed tables, which show the length of service and ages of 83,406 pensioners to whom certificates were granted from February 14 to June 30, 1891, inclusive.

The facts upon which these tables are based were taken from the papers in each case and recorded upon statistical cards, and com-

pilation made therefrom. These cards were put in use for the above purpose, and also for the preparation of the daily report of the value of pension certificates issued, on the 14th day of February last. It would have been interesting to have had these figures for the entire year, but the cards were not adopted for this purpose until the above-named date.

It will be observed that of the 12,402 soldiers to whom certificates were issued under the general law, 1,371 were to persons who had served a period of 6 months and under, while 11,031 were to those soldiers who served for a period of 7 months and over, and that the largest number of certificates issued to soldiers of a particular length of service was 905 to those who served 34 months, and 878 to those who served 36 months. The remarkable fact is disclosed that 50 certificates were issued to men who served from 161 months to 476 months. It also appears that of the 71,004 persons to whom pensions were granted under the act of June 27, 1890, 1,163 certificates were issued to soldiers who served 6 months and under; 26,099 were issued to persons who served 12 months and under, while 44,905 were issued to those who served 13 months and over, and that the largest number of certificates issued to any class was 4,693 to men who served 36 months.

It is a somewhat remarkable and interesting coincidence that the age attached to the greater number of persons pensioned under both the old law and the act of June 27, 1890, was 47 years.

I submit that the data incorporated in these tables shows the fact that the pensions now being granted under the old as well as the new law are not to persons whose terms were short and who saw but little service during the war. The great majority of the certificates now being issued are to veterans of the great struggle for the Union, and many of these men would have gone to their graves in want, but for the just, humane, and timely enactment of the act of June 27, 1890.

PENSIONS.

7

Statement showing number of invalid pensions granted under the general law from February 14 to June 30, 1891, inclusive, and the period of service, by months, rendered by each pensioner.

Months.	No.	Months.	No.	Months.	No.	Months.	No.
1.....	25	39.....	117	79.....	1	172.....	1
2.....	64	40.....	75	82.....	3	173.....	1
3.....	221	41.....	94	84.....	4	174.....	2
4.....	463	42.....	73	85.....	1	176.....	2
5.....	321	43.....	83	86.....	2	180.....	2
6.....	277	44.....	90	88.....	1	181.....	1
7.....	326	45.....	141	89.....	1	192.....	2
8.....	361	46.....	162	91.....	1	204.....	1
9.....	613	47.....	143	92.....	1	210.....	3
10.....	578	48.....	153	94.....	1	214.....	2
11.....	379	49.....	70	96.....	8	222.....	3
12.....	463	50.....	48	97.....	1	225.....	1
13.....	212	51.....	22	99.....	4	232.....	1
14.....	168	52.....	30	100.....	2	233.....	2
15.....	161	53.....	18	101.....	1	340.....	1
16.....	253	54.....	17	103.....	1	241.....	1
17.....	246	55.....	11	104.....	1	245.....	2
18.....	266	56.....	13	106.....	2	251.....	1
19.....	211	57.....	6	107.....	1	253.....	1
20.....	193	58.....	7	108.....	3	257.....	1
21.....	181	59.....	8	112.....	1	259.....	1
22.....	194	60.....	43	117.....	2	260.....	1
23.....	163	61.....	4	118.....	2	262.....	1
24.....	245	62.....	1	120.....	13	263.....	1
25.....	190	63.....	1	122.....	1	270.....	1
26.....	108	64.....	3	128.....	2	286.....	1
27.....	88	65.....	1	129.....	1	292.....	1
28.....	91	66.....	3	133.....	2	297.....	1
29.....	93	67.....	3	138.....	2	317.....	1
30.....	113	68.....	5	142.....	1	323.....	1
31.....	93	69.....	1	147.....	1	338.....	1
32.....	121	70.....	2	148.....	1	346.....	1
33.....	246	71.....	4	157.....	2	438.....	2
34.....	905	72.....	4	158.....	1	476.....	1
35.....	554	73.....	2	161.....	1		
36.....	878	74.....	1	163.....	1	Total	12, 402
37.....	534	75.....	1	166.....	1		
38.....	221	77.....	1	169.....	1		

Statement showing number of invalid pensions granted under the general law from February 14 to June 30, 1891, inclusive, and the age of each pensioner in years.

Age.	No.	Age.	No.	Age.	No.	Age.	No.
20.....	3	40.....	11	58.....	343	76.....	12
23.....	2	41.....	50	59.....	351	77.....	12
24.....	6	42.....	78	60.....	275	78.....	18
25.....	5	43.....	265	61.....	303	79.....	10
26.....	6	44.....	438	62.....	218	80.....	9
27.....	4	45.....	642	63.....	260	81.....	11
28.....	4	46.....	821	64.....	230	82.....	10
29.....	4	47.....	846	65.....	175	83.....	3
30.....	11	48.....	827	66.....	188	84.....	2
31.....	7	49.....	803	67.....	74	85.....	1
32.....	8	50.....	792	68.....	69	86.....	2
33.....	6	51.....	750	69.....	77	90.....	1
34.....	6	52.....	558	70.....	73	91.....	1
35.....	6	53.....	648	71.....	63	95.....	1
36.....	6	54.....	531	72.....	21		
37.....	9	55.....	571	73.....	19	Total	12, 402
38.....	4	56.....	423	74.....	26		
39.....	11	57.....	368	75.....	15		

Statement showing number of individual pensions granted under the act of June 27, 1890, from February 14 to June 30, 1891, inclusive, and the period of service by months rendered by each pensioner.

Months.	No.	Months.	No.	Months.	No.	Months.	No.
3.....	1,638	42.....	316	81.....	5	143.....	3
4.....	3,852	43.....	376	82.....	1	144.....	1
5.....	1,910	44.....	464	83.....	4	145.....	1
6.....	1,763	45.....	661	84.....	4	147.....	1
7.....	1,928	46.....	755	85.....	3	153.....	1
8.....	2,081	47.....	638	86.....	1	156.....	2
9.....	4,174	48.....	749	87.....	2	157.....	1
10.....	3,716	49.....	512	88.....	2	160.....	1
11.....	2,259	50.....	207	90.....	4	163.....	1
12.....	2,778	51.....	206	91.....	1	167.....	2
13.....	1,254	52.....	167	93.....	1	168.....	1
14.....	996	53.....	104	94.....	4	179.....	1
15.....	1,071	54.....	112	95.....	3	181.....	1
16.....	1,488	55.....	77	96.....	12	182.....	2
17.....	1,200	56.....	53	97.....	3	189.....	1
18.....	1,558	57.....	39	98.....	3	192.....	1
19.....	1,378	58.....	29	99.....	1	204.....	1
20.....	1,337	59.....	21	103.....	2	206.....	1
21.....	1,156	60.....	137	104.....	2	208.....	2
22.....	2,507	61.....	33	105.....	1	211.....	1
23.....	1,044	62.....	16	106.....	1	231.....	1
24.....	1,327	63.....	15	107.....	2	234.....	1
25.....	938	64.....	28	108.....	2	252.....	1
26.....	811	65.....	144	109.....	1	260.....	1
27.....	654	66.....	12	111.....	1	263.....	1
28.....	569	67.....	9	114.....	2	265.....	1
29.....	451	68.....	4	115.....	1	266.....	1
30.....	503	69.....	2	116.....	2	273.....	1
31.....	462	70.....	4	118.....	3	276.....	1
32.....	603	71.....	4	119.....	1	277.....	1
33.....	1,265	72.....	25	120.....	4	280.....	1
34.....	3,342	73.....	7	125.....	1	315.....	1
35.....	2,383	74.....	2	130.....	1	318.....	1
36.....	4,693	75.....	5	131.....	2	347.....	1
37.....	2,768	76.....	4	132.....	2	348.....	1
38.....	1,456	77.....	5	133.....	2		
39.....	858	78.....	3	134.....	1	Total	71,004
40.....	437	79.....	4	136.....	1		
41.....	315	80.....	2	138.....	1		

Statement showing number of invalid pensions granted under the act of June 27, 1890, from February 14 to June 30, 1891, inclusive, and the age of each pensioner in years.

Age.	No.	Age.	No.	Age.	No.	Age.	No.
30.....	2	50.....	3,871	66.....	1,390	82.....	37
31.....	1	51.....	3,557	67.....	959	83.....	30
33.....	1	52.....	3,152	68.....	839	84.....	15
37.....	2	53.....	3,056	69.....	748	85.....	21
38.....	8	54.....	2,891	70.....	687	86.....	16
39.....	15	55.....	2,500	71.....	584	87.....	8
40.....	124	56.....	2,414	72.....	373	88.....	8
41.....	228	57.....	2,373	73.....	311	89.....	12
42.....	607	58.....	2,207	74.....	253	90.....	8
43.....	1,590	59.....	1,905	75.....	232	91.....	4
44.....	2,542	60.....	2,077	76.....	172	92.....	2
45.....	3,637	61.....	1,921	77.....	112	93.....	2
46.....	4,036	62.....	1,891	78.....	81	94.....	2
47.....	4,282	63.....	1,821	79.....	77		
48.....	3,989	64.....	1,692	80.....	56	Total	71,004
49.....	3,927	65.....	1,601	81.....	45		

You will observe from table No. 2 that during the past fiscal year 20,525 pensioners were dropped from the rolls for various causes, and that of this number 13,225 were dropped by reason of death; it is highly probable that a number of pensioners have died whose deaths have not yet been reported.

The following table shows the number of pensioners of the various classes with the percentage of deaths per thousand persons. In 1889 the loss to the pension rolls by the decease of widows and dependent mothers and fathers was at the rate of 25 per thousand; in 1890, 33 per thousand, and, in 1891, 35 per thousand.

I invite your attention to this great death rate in this most deserving class of pensioners.

It is estimated that, of the soldiers who served the country during the late war, 1,004,658 were killed in battle or died during and since the war. On the 30th day of June last, 124,750 of these deceased soldiers were represented on the pension rolls by their widows or other dependents.

There are about 1,208,707 soldiers of the Union now living, and of these survivors 520,158 are now on the pension rolls. There are, therefore, 688,549 survivors who are not pensioned and 879,908 deceased soldiers not represented on the pension rolls.

PERCENTAGES OF MORTALITY.

The following table shows the percentages of mortality for each class of pensioners for the year ended June 30, 1891.

Classes.	Pensioners on the pension roll at the end of the year.	Number of pensioners who died during the year.	Average death rate for each 1,000 pensioners on the pension roll on June 30, 1891.
General law, Army and Navy:			
Invalids	419,046	7,113	17
Widows, etc.	111,128	3,900	35
Act of June 27, 1890, * Army and Navy:			
Invalids	101,112	430	14
Widows, etc.	13,644	103	29
War of 1812:			
Survivors	284	112	400
Widows	7,590	789	104
War with Mexico:			
Survivors	16,379	690	42
Widows	6,976	92	13
Total	676,160	13,229	.....

* The cases allowed under this act cover an average period of three and one-fourth months. The actual death rate of the "invalid" pensioners was 4 per 1,000, or an average annual death rate of 14 per 1,000, while that of the "widows, etc." was 8 per 1,000, or an average annual death rate of 29 per 1,000.

ADJUDICATION OF THE CLAIMS OF WIDOWS AND OTHER DEPENDENTS.

During the months of July and August a large proportion of the force of the Bureau were placed upon the work of examining the claims of widows and other dependents of deceased soldiers. It is believed that these worthy claimants merit a special effort on the part of the office to bring their claims to early settlement.

WORK OF THE ARMY AND NAVY SURVIVORS' DIVISION.

I invite your attention to table No. 20 of the work for the year of the Army and Navy Survivors' Division. Among other items of interest will

be found the statement that 155,930 names with post-office addresses were furnished to claimants in 26,210 cases, thus rendering valuable assistance to them in their search for evidence.

WORK OF THE MAIL DIVISION.

Your attention is particularly invited to table No. 21, showing the work of the Mail Division of the Bureau of Pensions.

No table in this report more fully illustrates and emphasizes the magnitude of the work of this Bureau. It will be seen that during the fiscal year the Bureau received 154,817 communications from members of Congress; that 1,170,660 letters of inquiry in regard to pension claims were received from claimants and their attorneys and friends; that 5,375,120 pieces of mail matter were received during the year, and that 3,926,491 letters, circulars, and cards were sent out from the Bureau.

Prior to October, 1889, the practice of the Bureau was to send letters of inquiry from claimants to the cases without acknowledgment. Now it is a rule of the office that the chief of the mail division shall cause an acknowledgment of all letters to be sent to the writers, after which such communications are forwarded to the claims to which they relate.

There was an average of more than 3,800 letters of inquiry received per day. It was a physical impossibility to draw from the files and examine the claims to which these letters related and to give the writers of such letters a definite answer as to the condition of these claims. To have answered these letters intelligently after an examination of the claims would have been such a herculean task that the adjudication and allowance of claims would have ceased. The Commissioner was left to the necessity of simply forwarding acknowledgments to the writers of such letters, with a statement that the claims to which they related would receive attention when reached in their order.

A class of letters was received, however, of such a character as forbade delay. These letters were from all classes of claimants, setting forth with great earnestness and particularity statements of their ill health and destitution.

For the purpose of giving proper attention to these letters, a section was organized in the Mail Division in November, 1890, with an assistant chief and a suitable number of clerks. As a result of this arrangement, 26,091 letters were answered direct by this section, 3,029 were brought to the special attention of the Commissioner, 4,580 were referred to the law division and the cases to which they related placed upon the list of "completed files," and 31,587 were referred to the proper adjudicating division for reply.

The labors of this section have been beneficial to many claimants by causing their claims to be brought to a more speedy settlement.

INSTRUCTIONS BY THE COMMISSIONER TO THE MAIL DIVISION FOR
THE CONSIDERATION OF URGENT LETTERS.

1st. Where a claimant alleges the necessary facts to bring his claim substantially within the provisions of Order No. 151, send the letter to the law division for case to be placed on the completed files.

2d. Where a claimant states his condition to be such as would, if shown by affidavits, authorize it to be made special, send him circular No. 3-052, with the information that if he furnishes the proofs his claim will be made special.

3d. Where the claimant complains of delay but does not bring his case under Order No. 151, send him a copy of that order, and inform him that if he completes his case and gives notice under that order, it will be placed upon the completed files and be taken up promptly in its turn.

4th. If a claimant shows by his letter that the evidence is all in, but that he has not been examined, send the letter to the chief of the proper division, who will examine the papers and order the examination, if it is proper to do so.

5th. If a claimant alleges financial distress, but does not state that his claim is complete, send him Order No. 151, and inform him that if he completes his case at once, and gives notice under said order, his claim will be placed on the completed files and taken up and disposed of promptly.

6th. If a claimant alleges that his claim is in the completed files, or if he inquires what further evidence is needed to complete the claim, and also alleges destitution, the letter should be referred to the chief of the proper adjudicating division, who will see that proper action is taken and the claimant advised.

All letters acted upon under this order shall be properly indorsed in the mail division.

CORRESPONDENCE WITH MEMBERS OF CONGRESS.

I regret to say that the correspondence of the Bureau of Pensions with members of Congress in regard to the status of pension claims has not been kept current, as is desirable, because of the immense number of requests made by Senators and members for the condition of claims. As stated above, there were 154,817 Congressional calls for the condition of cases made during the past fiscal year, being an average of more than 500 per day.

It is desirable from every point of view that the greatest courtesy shall be extended by executive officers to members of the law-making power in matters pertaining to executive business. Members of Congress correspond with the Bureau of Pensions in regard to claims pending therein with a view of having such claims brought to a speedy adjudication, but the number of their applications for "status" has been so

great that if the claims to which they related had been drawn from the files and a proper statement of the status given from day to day as received, it would have occupied so much of the time of the examiners that it would have seriously interfered with the adjudication of claims, and would have resulted in a denial of justice to thousands of claimants to whom certificates have been issued.

This condition of things has been such a disagreeable feature in the administration of the Bureau that I have studied every means to avoid it. In January last I adopted an "examiner's brief," for the use of such persons as are engaged upon the work of examining claims, with suitable printed headings. Upon this brief the examiner is required to make a careful entry of all material facts connected with the pension claim, beginning with the matters of record and concluding with an entry, under the proper heading on the date of such examination, of a statement of the facts necessary to be proven to establish the claim. The facts entered by one examiner are to be accepted as correct by the other examiners handling the case until such time as the same shall be taken up for final action, when the entries are to be verified.

The object I had in view in the preparation and adoption of this brief was to enable an examiner to arrive at the "present condition" of the claim by an examination of the brief, and thus obviate the necessity of a full examination of the papers when called upon to furnish the status of the claim.

This brief is now being used in connection with all old law claims, and I am satisfied that as soon as these claims are briefed there will be no difficulty to furnish members of Congress with the status of claims without interfering with the work of adjudication.

STATISTICAL CARD.

Some time since I caused the preparation of a statistical card to be used in connection with pension claims when taken up for action, one of which is placed with each case, and upon which is entered the name of the claimant, his company and regiment, date of his enlistment and discharge, his age at enlistment, his length of service in months, his post-office address, his age at date of pensioning, rate at which he is pensioned, and the amount of first payment; also blank spaces in which to enter the date of the death of pensioner, and his age at death. From these cards have been collated the tables that are found on pages 7 and 8 giving the length of service and ages of pensioners.

From these cards the necessary information is taken from day to day for the daily report. These cards will be placed in file cases by regiments, in alphabetical order by companies. The Army and Navy survivors' division will have the custody of these cards and they will afford a most convenient and easy reference for the history of adjudicated claims, and their use will also greatly relieve the heavy labors in the admitted files.

DAILY REPORT OF CERTIFICATES ISSUED.

Your attention is respectfully invited to the importance of the daily, weekly, and monthly reports, recently adopted, of the issue of pension certificates.

Heretofore, while a record was made of the issue of certificates and the monthly rates of pension granted by them, no statement was prepared for the use of the Commissioner, or the Department, showing in detail the various classes of certificates issued and the payment required by them. These facts were reported by the pension agents, from time to time, and were brought together in the Commissioner's annual report. The absence of this important data left the office entirely in the dark as to the amount of money that was being certified against the Treasury from day to day.

Realizing the importance of having constant and accurate knowledge of the work of the Bureau, I have adopted daily reports of pension certificates issued, showing the number of certificates of all classes, the amount of the first payment of each class, the average first payment of all classes, the monthly rates of each class, and the average monthly rates. These daily reports are consolidated at the end of each week, and a further consolidation ensues at the end of each month.

I respectfully recommend that the weekly reports of the issue of pension certificates be printed and furnished to members of Congress.

STATEMENT OF NUMBER OF CLAIMS PENDING JULY 1, 1891.

On the 1st day of July an examination and count of all claims pending in the office was made with a view of correcting any errors which may have crept into the records, which have heretofore been based upon the reports of the record division. As a result of this examination a great many duplicate claims of various kinds were found, and these have been eliminated from the count.

The following table gives an accurate statement of claims pending in the office at the date above mentioned, and from which it will be seen that while there were 928,473 claims pending, 559,027 were claims of persons who were not on the pension rolls. The remaining 369,446 were claims for increase of pension and duplicate claims under different laws.

Statement of claims pending.

Old war service prior to 1861.....	4,125
Service subsequent to March 4, 1861:	
Original invalid	153,201
Original widows'	87,855
	— 241,056
Act June 27, 1890:	
Original invalid	207,475
Original widows'	70,128
	— 277,603
Additional claims to others, on file, but not pensioned:	
Original invalid, rejected files.....	23,875
Original widows', rejected files.....	7,303
Widows formerly pensioned, but dropped from the rolls.....	5,065
	— 36,243
Number of claimants not on rolls.....	559,027

Number of persons pensioned under the old laws who have increase claims pending	194,299
Number of persons on rolls under old laws who have claims pending under act of June 27, 1890.....	74,697
Number of claims of widows, etc., for accrued pension of deceased pensioners.	6,812
Duplicate claims under act of June 27, 1890, with old law claims on file	93,638
Total.....	928,473
Of the above pending claims the number filed under the act of June 27, 1890, is.	482,181
There are also in the files of the Pension Office rejected claims to the number of	146,536

ORDERS FOR MEDICAL EXAMINATION.

It will be seen from the report of the medical referee that during the fiscal year 603,641 orders were issued for the medical examination of claimants and that 474,680 certificates of medical examinations were received.

CALLS UPON WAR DEPARTMENT.

There were received during the fiscal year 345,867 reports from the War Department, giving the military and medical history of pension claimants.

This great volume of work was performed in a most prompt and satisfactory manner, and I take pleasure in extending to Major F. C. Ainsworth, chief of the records and pension division of the War Department, the thanks of this Bureau for the efficient and courteous manner with which he and his clerical force have responded to the many calls of this Bureau.

The great improvement which Major Ainsworth has brought to that branch of the public service enables this Bureau to receive within twenty-four hours from the day of the calls full reports as to the military and medical history of claimants as shown by the records of the War Department, whereas in former years these requests remained unanswered for months.

CURRENT BUSINESS.

In directing the affairs of the Pension Bureau, it has been my aim to make the business in all the divisions as nearly current as practicable. This has been accomplished.

MAIL DIVISION.

Commencing with the mail division, it is proper to say that the letters and documents received each day are opened, assorted, examined, and properly disposed of on the day of their receipt. All letters are duly acknowledged or answered at once.

OFFICE OF CHIEF CLERK.

The business of the office of the chief clerk is attended to daily as it comes to hand, and nothing is allowed to accumulate.

APPOINTMENT DIVISION.

In the appointment division all correspondence relating to the establishment of or changes in medical boards, and all communications relating to appointments and promotions receive attention on the date of their receipt.

RECORD DIVISION.

For some months after the passage of the act of June 27, 1890, the record division was overwhelmed by the great mass of applications which poured in under that act. The force of the division was increased by details from other divisions to 338 persons, but it was beyond the power of even this number of clerks to take up and dispose of the applications as they came in. This work, however, was pushed with great energy, and all applications were examined, recorded, numbered, jacketed, and sent to the proper adjudicating divisions for action. The force has been reduced to 154 persons, and now all applications for pension and all evidence and other papers relating to cases sent to the record division for action are immediately disposed of, and the proper record entries of pension certificates issued from day to day are also made by this division without delay.

FINANCE DIVISION.

That part of the business of the Bureau which is conducted through the finance division experiences no delay, but receives the same prompt attention that is given to business by the best private houses.

LAW DIVISION.

Attention is invited to the report of the chief of the law division, showing the great amount of work performed by that division during the fiscal year. Nothing is allowed to accumulate in the law division. The work is all promptly and efficiently done, with no unnecessary delay.

SPECIAL EXAMINATION DIVISION.

I am glad to be able to state that the work in the special examination division is now thoroughly well in hand. Two years ago more than 14,000 claims were in the hands of that division. An earnest effort has been made to dispose of the accumulated work of this division, and, as a result, during the past two years 56,146 claims have been examined and reported upon. There were on the 1st of July 2,270 claims in the hands of special examiners in the field for examination.

The reduction of this work has made it necessary to reduce the force of special examiners assigned to duty in the field. Last October there were 340 persons assigned to this work; there are now 110 employés so assigned.

The reduction of this force has been an unpleasant feature of administration, as a great majority of persons assigned to duty as special examiners preferred to remain in the field because of the \$3. per diem attached to this service and their greater freedom of action than when confined to desk work at the Pension Office.

The amount expended for this service during the fiscal year just ended was \$347,599.80. The appropriation for the next fiscal year is \$215,000, which will be amply sufficient for the service.

Under the present method of procedure, claims placed in the hands of special examiners are investigated and reported upon with the utmost dispatch, to the great benefit of claimants appearing before the Bureau whose claims require special investigation.

STATIONERY DIVISION.

The work of the stationery division is conducted in the same prompt and orderly manner as is the business of first-class private stationery houses. Books, blanks, and stationery are promptly furnished to the several pension agents, special examiners on duty in the field, and the single surgeons and the several boards of examining surgeons throughout the country. In addition thereto the stationery division supplies all stationery required in the Bureau, an account being kept with each division and each employé. The magnitude of these deliveries will be seen by referring to the report of the chief of that division.

ARMY AND NAVY SURVIVORS' DIVISION.

I invite your attention to the report of the chief of the army and navy survivor's division. The work of this division is extensive and of great benefit to the claimants appearing before the Bureau, for where claimants are unable to furnish the proof necessary to establish their claim under the law by reason of their inability to locate the officers and comrades with whom they served, the examiners have recourse to the files of this division, from which a list of names and post-office addresses of comrades is obtained and forwarded to the claimants, thus materially assisting them in the prosecution of their claims to a successful issue.

ADJUDICATING DIVISIONS.

There are eight great divisions engaged in the work of the adjudication and settlement of pension claims and the issuing of certificates in pension cases.

The five adjudicating divisions proper, composed of the old war and navy division, with a force of 79; eastern division, with a force of 180; the middle division, with a force of 187; the western division, with a force of 200; and the southern division, with a force of 154—being a total force of 779—have the custody of the 928,473 pension claims pending in the Bureau. Such work as can be current in

these divisions is now performed without delay. That is, all new applications for pension and all applications for increase of pension, all new evidence in cases, and letters and reports of medical examinations relating to pension claims are immediately placed in the files where they properly belong from day to day, without allowing them to accumulate.

The other work of the divisions (that is, the adjudication of claims, calls upon the War Department for the military and medical history of claimants, calls upon claimants for evidence to complete their cases, and orders for medical examination) is performed in the order in which the cases are reached, the object being at all times to give attention to each claim in its turn under the rules.

BOARD OF REVIEW.

Cases sometimes pour into the board of review from the five adjudicating divisions at such a rate that there will be an accumulation of several days' work, but all this work is taken up in its order (no cases being pigeon-holed) and all cases assigned to reviewers and re-reviewers must be disposed of before they are given other work.

MEDICAL DIVISION.

The enormous business of the medical division is carried forward without unnecessary delay. Pension claims received by that division are taken up in their order of receipt, and all medical questions involved are considered and settled without pushing important cases aside to a more convenient season. All orders for medical examinations are immediately recorded and mailed, and the certificates of examination of medical boards are examined daily, and those found to be sufficient are immediately forwarded to the adjudicating divisions to be placed with the proper cases. The accounts of the medical boards are also examined daily and transmitted to the finance division for final action.

CERTIFICATE DIVISION.

The important work of the certificate division is conducted with the utmost care, system, and promptness. The order under which this division is acting requires that certificates shall be written on the day next following the day on which the admitted cases are received in the division, and, with very rare exceptions, the division is able to perform the work in this order. Complaints are sometimes made that there is unnecessary delay in the mailing of certificates after the case has been submitted to the certificate division. In reply to these complaints it is proper to state that when the certificates have been written and signed by the Commissioner they are transmitted to the Department for examination and signature of the Secretary, and the seal of the Department. Besides this, proper records have to be made of the issue of

certificates, the necessary notices prepared in each case, and various other matters must be attended to before a completion of the work is had and the papers are finally mailed. It, therefore, requires ten days after an admitted claim is received in the certificate division to issue the certificate and mail it to the proper pension agent.

I have carefully looked into this work a number of times with a view of hastening the mailing of certificates, but I am unable to see how the time can be shortened.

In concluding this summary of the business transacted by the several divisions of the Bureau, I desire to call your attention to the enormous amount of work performed by the admitted files. The admitted files has the custody of invalids', widows', minors', and dependents' pensions of the late war and of the regular Army, which have been admitted and in which certificates have been issued. The work of this division includes the drawing of cases of pensioners applying for increase of pension, the cases of deceased soldiers whose widows or other dependents have filed claims, and a large number of cases called up by inquiries which could not be properly answered without an examination of the papers on file. The number of cases handled during the fiscal year was 985,154, aggregating a weight of more than 280 tons. There are ten clerks assigned to this division.

TELEGRAPH AND TELEPHONE SERVICE.

It may be a matter of interest to the general public to know that, for the convenient transaction of the public business in the Bureau of Pensions, a telegraph and telephone service exists.

Besides telegraphic communication with the Western Union and the Postal Telegraph Companies, there is a Government line connecting the Bureau of Pensions with the other bureaus and executive departments of the Government in the city of Washington.

There is also a telephone service so arranged that five circuits can be operated at once. This service is under the efficient management of one person, Mr. George H. Getz, who reports that during the year 132,600 telephone messages were transmitted, and 7,500 telegrams forwarded from this office.

PENSION AGENCIES.

There are 18 pension agencies, eleven of which are located in Government buildings and seven in rented quarters. The quarters occupied by the Chicago and Topeka agencies in the public buildings are totally inadequate for the convenient transaction of the public business. Each of these agencies should have at least twice as much room as they now occupy. The Chicago agency may be relieved when the new appraisers' building is finished by the removal of a number of the force connected with the customs service to that building and the assignment of additional quarters to the pension agency.

There seems to be no means of relieving the Topeka agency by the assignment of additional quarters in the Government building in that city. A proposition has recently been submitted by Hon. S. J. Crawford for the use, by the pension agency, of a part of the new building erected by him in Topeka, and his proposition is, in my opinion, worthy of earnest consideration. For the continued use of the building it would be necessary for an appropriation for rent. The rent proposed is \$2,500 per annum.

The following named agencies are in private quarters, and the rent charged each is shown below:

Washington, D. C.	\$1,380
Detroit	1,980
Milwaukee	2,218
Indianapolis	2,500
Pittsburg	2,200
New York	6,500
San Francisco	1,272
Total.....	\$18,050

The pension agent at Pittsburg has recently secured new and more commodious quarters, which will probably be occupied by him until the completion of the public building at that city. In the case of the agency in the city of New York, it is highly improbable that the present quarters (the old Dime Savings Bank of New York City) can be retained without an increased rent to \$10,000 per annum.

It is proper to state that the business of the pension agencies is conducted in the most satisfactory manner, the disbursements being made with extraordinary dispatch. The employés on duty at the several pension agencies work more hours each day and receive smaller salaries than the clerks of the various bureaus in Washington employed at similar work. As these agencies are a part of the permanent establishment for the conduct of the pension business, there seems to be no reason why their salaries should not be equal to other employés of the Government engaged upon the same class of work.

I extend the thanks of the bureau to the pension agents and their official force for the very satisfactory and able manner in which they have transacted public business during the past year.

EXAMINING SURGEONS.

In the establishment of the boards of examining surgeons throughout the country for the medical examination of claimants, it is a rule of the bureau that the appointees must be graduates of some reputable school of medicine, and have had at least five years' practice. It is believed that these boards are composed of gentlemen of good professional ability and standing in the respective communities where they reside, and for the most part their services in the examination of claimants have been entirely satisfactory to the Bureau.

In the selection of specialists for the examination of particular classes of disabilities, the aim has been to secure the services of physicians and surgeons of the highest skill and standing.

REPORTS OF THE CHIEFS OF DIVISION.

I invite your attention with pleasure to the able and interesting reports of the deputy commissioners, the chief clerk, the assistant chief clerk, and the chiefs of the various divisions, showing the character and amount of work performed under their immediate supervision. From these reports an insight into the magnitude of the work of the Bureau can be readily gathered.

INCREASE IN SALARIES.

Your attention is particularly invited to the fact that the salaries of the chiefs of division in this Bureau are very much less than the salaries of the division chiefs in almost all the other Bureaus of the executive departments. In my opinion the services rendered by these officers are of such importance and value as to deserve an increase of salary.

I also invite your attention to the fact that the number of third and fourth class clerks in this Bureau is far less, in proportion to the number of employés, than in any of the other bureaus of the Government. I recommend that the salaries of six of the chiefs be increased to \$2,500, and that the salaries of the six others, as well as of the law clerk, be increased to \$2,250. There is now provision of law for the employment of 77 clerks of class four, and 98 clerks of class three. I recommend that the number in each of these grades be increased to 150. This recommendation does not contemplate an increase in the force, but a readjustment of the salaries.

An estimate for this increase will be made at the proper time.

AGGREGATE FORCE UNDER THE SUPERVISION OF THE COMMISSIONER OF PENSIONS.

There are now 1,135 examining boards and 335 single surgeons located in various parts of the country, aggregating 3,800 physicians engaged in the great work of the medical examination of applicants for pension.

The clerical force proper is composed of 2,009 persons, and there are 18 pension agencies furnishing employment to 419 employés, making a total number of 6,246 officers and employés of the Bureau of Pensions.

SPECIAL CASES.

During the fiscal year just ended 5,608 applicants for pension brought their cases within the operation of Departmental Circular No. 3-052, under the provisions of which claims are made "special." Of this number 211 were claims of Oklahoma soldiers, expedited by your order.

The grounds upon which a claim may be made special are set forth in said circular as follows :

To justify the Commissioner in making a claim special, it is necessary that such a condition of the claimant shall be shown to exist as will satisfy those whose claims will be put back by this action.

The rule is therefore adopted that, to warrant making a claim special and have it considered out of its proper order, it must be shown that the claimant is unable to earn a living and is in destitute circumstances or that the claimant is sick and in danger of immediate death.

These statements must be verified by the oath of the claimant making them or of some reputable party acting for him.

DIFFERENCE BETWEEN THE ACTS OF MARCH 3, 1883, AND MARCH 4, 1890.

I respectfully call attention to the following recommendation contained in the annual report of last year, and have the honor to renew the same :

I respectfully invite your attention to the great difference in amount between the rate of \$30 per month granted by the act of March 3, 1883, to pensioners who are so disabled as to be incapacitated for performing any manual labor, and the rate of \$72 per month granted by the act of March 4, 1890, to pensioners who require the regular aid and attendance of another person. There are many claimants who are entirely incapacitated for performing manual labor and who periodically require the aid and attendance of other persons, but who are unable to establish the fact of the requirement of constant aid and attendance.

It occurs to me that it would be a just provision to create a higher rate than \$30 per month for cases of this description, and I respectfully recommend that a rate of \$50 per month be created for them.

The experience of the office makes it more and more apparent that there should be a rate between that of \$30 per month and \$72 per month for a class of pensioners who are less seriously disabled than those entitled to the higher rating, but who seem, in justice, to be entitled to more than \$30 per month.

ESTIMATE OF WORK FOR ENSUING FISCAL YEAR.

I desire to call your attention to the reports made to the Department during the past few months, showing the number of pension certificates issued, average amount of first payments, and of the monthly rates. The average of issues is now about 30,000 certificates per month. I am satisfied that the Bureau will be able to carefully adjudicate and allow 350,000 claims for pension during the present fiscal year, and after a careful estimate of the probable cost of these issues I have no hesitation in saying that, in my opinion, the present appropriation of \$133,473,085 will be amply sufficient.

REIMBURSEMENT FOR THE CARE OF INSANE PENSIONERS.

I call attention, with approval, to the recommendation of Deputy Commissioner Lincoln in his report for additional legislation for the protection of the interests of the Government in respect to the expendi-

tures made for the care of disabled soldiers in the Government Hospital for the Insane. There is no well-defined authority for the reimbursement of the Government for such expenditures out of pensions which may be allowed to the insane person after years of care at the Government expense.

PENSION OFFICE BUILDING.

A considerable expenditure is now required for certain repairs and improvements in the Pension Office building and providing it with carpets and furniture. The Bureau of Pensions occupies 120 rooms in the building; 70 of these rooms now need recarpeting; a considerable quantity of the furniture needs replacing; doors have never been provided for the majority of the rooms, and in winter, the drafts of cold air render these rooms at times dangerous to the health of their occupants. The closet fixtures are antiquated, and in consequence it is difficult to keep the building in proper sanitary condition. A suitable and convenient arrangement for ventilating the cellar, where the steam-heating and elevator machinery are located; a vault for the storage of coal; and an arrangement for disposing of and hoisting the ashes from the cellar are all badly needed. It is estimated that at least \$30,000 will be required for these purposes, and I respectfully recommend that a direct appropriation be made therefor, to be expended under the direction of the Secretary of the Interior.

CONCLUSION.

The Bureau of Pensions is thoroughly organized for the performance of its great work. The divisions are well balanced in respect to the work to be performed by each, and their chiefs are gentlemen of excellent ability and are conscientiously devoted to their duties. The clerical force is composed of men and women of intelligence and capacity, and during the past year there has been exhibited an excellent spirit which can not be too highly commended. An immense amount of work has been done, well done, and cheerfully done. I extend to them my hearty thanks.

It affords me pleasure to be able to state that I have received the cordial advice and support of your Department in all efforts for the improvement of the organization of this Bureau and the prompt settlement of pending claims, for which I extend my sincere thanks.

I am warmly grateful to the deputy commissioners, medical referee, and heads of divisions for their valuable advice and earnest labors in bringing the Pension Office to its present high state of efficiency. I also particularly thank those who have performed their duties under my immediate direction.

Very respectfully,

GREEN B. RAUM,
Commissioner.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

REPORT OF FIRST DEPUTY COMMISSIONER.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 22, 1891.

SIR: In compliance with your request for a report of the work performed by and under the immediate supervision of the First Deputy Commissioner during the fiscal year ending June 30, 1891, I have the honor to submit the following statement:

The First Deputy Commissioner is charged with the supervision of three divisions of the Bureau, *i. e.*, the Eastern, the Southern, and the Army and Navy survivors, divisions.

Two of these are adjudicating divisions, while the third (the Army and Navy survivors') has nothing to do with adjudicating claims, but is charged with the collection of statistics relative to surviving soldiers and sailors and with the ascertaining, for office record, of the post-office addresses of such survivors. The information gathered by this division is of great value to the Bureau and also to many claimants, who, without the assistance afforded by the records of the division, would be unable to trace comrades and officers whose testimony is necessary to the settlement of their claims. The operations of this division will be found set forth in detail in the report of the chief in charge.

The adjudicating divisions under the supervision of the First Deputy Commissioner submitted to the board of review during the year 145,436 claims of all classes, ordered 220,692 medical examinations, and sent out 850,826 letters and circulars.

The number and disposition of the force of clerks and employés engaged upon the foregoing work are fully shown in the reports of the chiefs of the Southern and Eastern divisions, and for information bearing on that subject I respectfully refer to such reports.

During the year I have been in continuous personal contact and communication with the chiefs of the divisions under my charge and have kept under constant personal observation the work and operations of those divisions. As a result of such supervision I can heartily commend the fidelity, industry, and strict attention to official duty by all concerned in said work, and testify to the important share taken by them in the gratifying results of the labors of the Bureau for the year.

The bulk of the work of the First Deputy Commissioner is of such a nature that no record can be kept of it. Four days of the week (from Tuesday to Friday, inclusive) are set apart for the reception of the general public whose business at the Bureau has to do with the work of the divisions above referred to. During these days an average of probably 125 claims per day is drawn from the files for examination by the callers at this desk, and a large number of these claims receive the personal consideration and action of the First Deputy Commissioner.

Rules governing the transaction of business, personally conducted with claimants, attorneys, and others, are in force, and great care is taken that all are afforded equal privileges, with special facilities to none. The two working days of the week not given up to the general public are reserved for the purpose of enabling the First Deputy Commissioner to clear up the accumulation of work on his desk; this work consists of correspondence, the consideration of claims to which attention could not be given during the other days of the week, and to the disposition of other matters that arise as details of the work of this branch of the Bureau.

It must be added, however, that upon these two days so reserved none are denied admission or a hearing, if, by reason of non-residence or otherwise, they are prevented from calling at the Bureau on the days specially set apart for the reception of the public.

This report would be incomplete were it to contain no words of commendation for the zealous and efficient assistance rendered me by the clerks employed in my office who have so materially aided in the prompt discharge of the duties of this desk.

In conclusion, permit me to tender you my acknowledgments for the uniform courtesy extended to me in all our official intercourse and for your earnest approval of all suggestions relative to increasing the efficiency of the force and value of the work in the divisions under my supervision.

Very respectfully,

ANDREW DAVIDSON,
First Deputy Commissioner.

Gen. GREEN B. RAUM,
Commissioner of Pensions:

REPORT OF SECOND DEPUTY COMMISSIONER.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 21, 1891.

Hon. COMMISSIONER OF PENSIONS:

SIR: In compliance with your direction I have the honor to submit herewith a report of the operations of this office during the fiscal year ending June 30, 1891.

ORGANIZATION.

By your order of November 4, 1889, the middle division, the western division, and the old war and navy division were assigned to the supervision of the Second Deputy Commissioner, and for the manner in which the work of these divisions has been performed your attention is more particularly invited to the reports of the chiefs thereof.

Of the 1,075,962 pending and rejected cases found in the files of the five adjudicating divisions of the Bureau by the count of July 1 last, 645,574 of them belong to the three above designated divisions. In the handling of this great number of cases 466 clerks were engaged, and during the period covered by this report they submitted upwards of 225,000 cases for the final action of the board of review, ordered 326,595 medical examinations, and prepared and mailed 840,340 letters and circulars, besides many letters and circulars of a miscellaneous character.

DEPUTY COMMISSIONER'S ROOM.

The work performed in the Deputy Commissioner's office is principally the transaction of business with such of the outside public as call personally in the interest of matters pertaining to the Bureau and to that part of it embraced in the western, middle, and old war divisions. During the 12 months covered by the fiscal year ending June 30 last, an aggregate of [at least 30,000 of these persons called, the daily average being over 100, though at times their number in one day approximated 150. They have all been received kindly and courteously, their statements given a careful hearing, and their requests complied with whenever it was possible to do so. The inquiries of these callers are many and varied, and range all the way from a request for a blank application for pension, or the return of a discharge certificate, up to a question of construction of the latest Congressional enactment on the subject of pensions, or to the scope of the law regulating the grant of pensions to the widows of soldiers of the Revolutionary war.

ATTORNEYS.

The major portion of these callers were attorneys, or the representatives of attorneys, resident mainly in this city, and under the rules they have each been permitted the examination of two cases, in which they appear as attorney of record, on four days of the week, from Tuesday to Friday, inclusive. A relaxation of these

rules has been made in regard to out-of-town attorneys whose personal calls at the Bureau are occasional only. Every facility has been accorded these gentlemen for the speedy transaction of their business. The number of cases thus examined during the 12 months embraced in this report will aggregate over 45,000, and many of them have been personally considered by the Deputy Commissioner in the settlement of questions in dispute between the attorney and the examiner in charge.

Monday and Saturday of each week have been reserved by the Deputy Commissioner for the personal examination of cases, the dispatch of business accumulating on his desk during the other days of the week, the disposition of such matters as are from time to time referred to him by the Commissioner and the chiefs of the adjudicating divisions, and the reception of members of Congress, who have come to recognize these days as affording more than ordinary opportunities for obtaining a speedy consideration of the interests of their constituents.

ORDERS, CORRESPONDENCE, ETC.

In the disposition of the business preferred by members of Congress, attorneys, claimants, etc., and also of the mail matter addressed to the Deputy Commissioner, as much of which receives personal consideration as is possible, it was found necessary during the 12 months ending June 30 last to dictate 15,467 orders, calls for status, and directions for medical examination, etc., a press copy of each properly indexed being kept. Of these 5,689 were responses to requests of Senators and members of Congress, 6,926 were responses to attorneys, and 2,852 were answers to inquiries of claimants. In addition to this there were a great many letters prepared in this office which differed from the letters emanating from the adjudicating divisions in their comprehensiveness and in the extraordinary care devoted to their preparation. They were in many instances indicative of action taken in cases of more than ordinary difficulty and importance. During the year there were reopened by me 6,790 rejected cases and similar action denied in 441 cases, of all of which a most careful record was kept in this office.

In the transaction of this enormous amount of business, I have had the assistance of three male and two female members of the clerical force, one messenger, one assistant, and one boy messenger, who were assigned for duty in my room, having been selected on account of their peculiar fitness for the work required. To each of these my earnest thanks are due for cheerfully rendering most intelligent, efficient, and valuable service.

PROMOTIONS.

Many persons evidently unfamiliar with the practice of making promotions in the office have addressed letters urging upon me their respective claims and fitness. To these answer has been given that to the Commissioner alone is reserved the right of recommending promotions to the appointing power.

Much correspondence contained in these requests led me to inquire amongst the Divisions under my charge as to the best method to accomplish best results. It was found that merit and ability rewarded by advancement met with universal congratulation and promoted feelings of emulation, while those who are inefficient are equally known to their fellow workers, and their promotion would lead to discouragement and dissatisfaction.

NEW LEGISLATION.

My attention has recently been called to two or three cases the peculiarity of which suggest the need of additional legislation for the proper distribution of the pension and for the protection of the interests of the Government as well as those of the claimant. These are cases where the soldiers having become insane during and by reason of their military service, were sent to the Government Hospital for the Insane, where they have been cared for ever since, a period of nearly 30 years.

In the allowance of these claims, application having been made by a guardian appointed in these late days and apparently for the sole purpose of obtaining the pension, it appears but proper that the Government should be reimbursed for the amount expended in the maintenance of these claimants since their separation from the service. Additional legislation to this effect is recommended.

REMARKS.

The 12 months embraced within this report have doubtless been among the most trying within the history of this Bureau, owing to the great increase of work growing out of the enactment of the law of June 27, 1890. Your report doubtless will show the great number of claims filed under this law, and coming as they did when no increase had been made in the clerical force of the Bureau, and when the pressure of business had already tested to the utmost the physical capacity of those upon whom its consideration devolved, the obstacles to the early settlement of these new claims seemed to be multiplied tenfold. The benefit of the increase in the working force of the Bureau made by the act of Congress approved August 29, 1890, was not manifest until some months subsequent to the appointment of the clerks provided by this law, and this was due, not alone to the inexperience of these new clerks, but because their training demanded so much of the time and attention of the old force, for be it said that a knowledge of the handling of pension claims and of the laws under which they are adjudicated is not to be acquired in a day, or a week, or a month, and indeed years of experience are often required for the mastery of many of the intricate problems which constantly arise.

In the face of these obstacles the showing made in the handling and disposition of these new claims has been truly magnificent, and merits the highest commendation of those whose interests are lodged in the Bureau and its work.

In the interest and for the comfort and well being of the working force whose desks are situated in rooms along the north and west sides of the Pension Building, I would earnestly urge that earliest possible action be taken, to the end that suitable doors be put into the arches leading from these rooms to the court, in order to better protect the employes from the cold of winter. If funds are available their use in this direction would be well put; and if not in hand an urgent and persistent effort should be made for suitable appropriation for that purpose.

CONCLUSION.

This report would not be complete without an expression of appreciation of the manner in which the work has been performed in the divisions under my charge and of the fidelity, zeal, and devotion to duty manifested by those who compose the working force which should at all times be made up of those, who, not unmindful of the interests of the Government, are yet in touch and in sympathy with the system by which the debt the nation owes the old soldier is paid. To you also, Mr. Commissioner, my warmest thanks are due for your uniform kindness and courtesy. The pleasant relations existing between us and your ready consideration of my suggestions and recommendations touching the needs of the service have measurably relieved the burden of my duties.

Respectfully submitted.

CHARLES P. LINCOLN,
Deputy Commissioner.

REPORT OF CHIEF CLERK.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,

Washington, D. C., September 16, 1891.

SIR: In reporting upon the work performed by the force under the immediate charge of the chief clerk, it is proper to state that it is of such a miscellaneous character that it can be set forth only partially by figures or tables. He has charge of the distribution of the office force and the general supervision of the business of the Bureau; but the greater part of his time is occupied in attending to personal calls of claimants, attorneys, and others who desire information or have requests to make.

Under your assignment of duties to the officers, the record, mail, and stationery divisions were given to the chief clerk.

The work of all these divisions has been very much increased during the past year, and has been creditably performed.

The clerks employed in signing the out-going mail not requiring personal signature are under the immediate charge of the chief clerk, also the clerks keeping record of the time taken in leaves of absence.

The following table shows by months the number of days taken by employés, as reported by chiefs of divisions.

Absence for parts of days are charged to the clerk, but not included in table.

The total annual leave taken is less than 24 days to each employé, and the number of days taken on account of sickness amount to less than 14 days to each. Leave without pay, with but few exceptions, was taken by reason of sickness extending beyond the 30 days allowed under rules of the Department. Last spring, as well as a year ago, the office suffered from "La Grippe," which made the sick list larger than usual.

TABLE A.

Date.	Annual leave.	Sick leave.	Without leave.	Total.
1890.	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>
July	2,857	1,101	177	4,135
August	6,539	1,146	233	7,918
September	3,710	1,174	229	5,113
October	3,254	1,287	269	4,810
November	3,517	1,081	173	4,771
December	4,441	965	165	5,571
1891.				
January	700	1,380	24	2,104
February	774	1,459	1	2,234
March	1,138	2,170	62	3,370
April	1,552	2,859	81	4,492
May	1,745	1,738	73	3,556
June	2,550	1,237	88	3,875
Total	32,777	17,597	1,575	51,949

The chief clerk has immediate supervision of the clerks in charge of the admitted files, which includes all cases that have been admitted, except Navy claims and service pension claims.

The table herewith shows number of claims in the admitted file at the beginning and end of the last fiscal year. The number added to the files during the year is greater than in any previous year.

TABLE B.—*Cases in admitted files.*

Date.	Invalid.	Widows and dependents.	Total.
July 1, 1890.....	488, 536	271, 924	760, 460
July 1, 1891.....	614, 190	295, 885	910, 075
Gain in year.....	125, 654	23, 961	149, 615

Table C shows briefly the work of the admitted files for the past three years, where the great increase in last year's work will be noticed.

The number of cases drawn from the files include those of invalid pensioners applying for increase; those of deceased pensioners whose widows or others entitled have made claim, and others called up by inquiries that can not be properly answered without an examination of the papers.

TABLE C.—*Showing work in admitted files for the last three years.*

	1889.	1890.	1891.
Cases drawn from files	357, 311	415, 638	472, 803
Cases returned to files	274, 614	280, 583	347, 158
Pieces evidence, etc., filed.....	60, 290	107, 816	165, 193
Total	692, 215	804, 037	985, 154

This represents all cases called for, though the case may have been out of the files.

These files contain 23,400 bundles of cases; the average weight of a bundle is 24 pounds. More than two hundred and eighty tons of papers were handled during the past year by this force of ten clerks located on the fourth floor, where the heat of summer is particularly severe. No portion of the office deserves greater consideration for fidelity and efficiency.

Very respectfully,

A. W. FISHER,
Chief Clerk.

Hon. GREEN B. RAUM,
Commissioner.

REPORT OF ASSISTANT CHIEF CLERK.

SIR: I have the honor to submit herewith a report of the work performed by the assistant chief clerk of this Bureau and the clerks assigned to duty in the division known as the appointment division, of which I am in charge, for the fiscal year ended June 30, 1891.

No detailed report has been made by the assistant chief clerk subsequent to the year 1887, and in view of the improvements that have been had in the organization and administration of this part of your office I deem it advisable to dwell briefly upon the present organization of the appointment division.

Under date of November 22, 1889, the following order, creating the appointment division, was issued by you:

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., November 22, 1889.

Order:

A division is hereby created in the Bureau of Pensions to be known as the appointment division.

The assistant chief clerk of the Pension Office shall be acting chief clerk of the appointment division.

This division shall have charge of all papers relating to the appointment of the entire official force of the Bureau of Pensions, including the boards of medical examiners, and of all papers relating to promotions.

The pay rolls of the Bureau shall be prepared in the division.

The chief clerk will assign the necessary clerical force for this division.

The superintendent of the Pension Office Building, and the force of laborers, will be under the direction of the assistant chief clerk for the care of the building.

The appointment division will be under the direction of the Commissioner.

GREEN B. RAUM,
Commissioner.

Under the operations of this order so much of the work of the Bureau as related to the establishment of the medical boards, then under the supervision of the medical referee, was detached from the medical division and placed under the direction of the assistant chief clerk, so that now he has charge of the preparation of the pay rolls, the records of the employés, complaints against any of the clerical force, the records of appointments, promotions, and dismissals, and other changes in the personnel of the Bureau, and such other miscellaneous work as may, from time to time, be assigned him by the Commissioner.

The assistant chief clerk has also the supervision of the superintendent of the building and the force of laborers under his direction who are charged with the care of the Pension Building.

At the time of the creation of the appointment division there were in the neighborhood of 400 boards of examining surgeons and the clerical force numbered 1,554 persons all told.

The great work of the Bureau in the adjudication of claims required the establishment of additional boards of examining surgeons and such establishments were effected from time to time as the exigencies of the public service demanded, so that now there are 1,155 examining boards and 335 single surgeons, aggregating 3,800 physicians engaged in the medical examination of applicants for pension.

Anticipating the vast amount of work that would follow the enactment of the law of June 27, 1890, an additional force of 455 persons was provided for by Congress, so that at the present time the clerical force proper of the Bureau numbers 2,009. There are also 18 pension agencies furnishing employment to 419 persons, making a total number of 6,246 employés under the direction of the Commissioner of Pensions.

Upon investigation I find that when the then assistant chief clerk assumed control of the appointment division the papers relating to examining boards and the employés of the Bureau were in the utmost disorder, and in order to secure the convenient conduct of the business of the division, he realized the importance of having the papers on file put in such shape that any document desired could be found at a moment's notice. With this end in view the employes of the division were placed upon the work of properly briefing all papers relating to matters pertaining to the division, and as a result, in a very short period perfect order followed the confusion previously existing. The increase in the number of examining boards and of the clerical force augmented the work of the division in a corresponding degree. The clerical force of this division consists of 11 clerks and 2 messengers. Prior to the consolidation under your order the clerks employed for the performance of the same work were double that number, and the total pay roll of the division aggregated nearly \$7,500 per annum more than the present roll.

During the fiscal year just closed 3,346 communications relating to the business of examining boards were written, and 4,062 letters relating to matters pertaining to the clerical force of the Bureau were prepared, making the aggregate number of letters sent out 7,408.

The proper preparation of the large pay roll of the Bureau requires absolute accuracy and constant supervision, payments being made semimonthly. All the

work of the division is current, nothing being left undone at the close of business hours.

The addition to the force for the care of the Pension Office Building has been of great value in putting the house in better order and a more sanitary condition than ever before. The substitution of the latest improved closets for the unsatisfactory and unsanitary stalls now in use is earnestly recommended, as it involves the health of those clerks occupying rooms adjacent to these closets. Disinfectants have been employed, but without remedying the evil.

The mechanics are constantly employed in repairs on the building and furniture; and it is found that the work is more promptly done and at less expense than by contract.

I assumed charge of the division on the 13th day of July, 1891. To convey the impression that the present splendid organization has been due in whole or in part to my exertions would be to claim credit properly belonging to another. When I entered upon duty I found a perfect organization effected by and under the direction of my immediate predecessor. Under his direction the irregular and confused practice heretofore had in this branch of the work of the office was done away with, and matters steadily and rapidly assumed a comprehensive and businesslike condition, and the confusion incident to the distribution of the work now done by the appointment division among several divisions has been obviated.

I take pleasure in bearing testimony to the conscientious work done by the clerks in this division. The work performed speaks for them.

Very respectfully,

O. P. HALLAM,
Assistant Chief Clerk.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF LAW DIVISION.

DEPARTMENT OF THE INTERIOR, BUREAU OF PENSIONS,
Washington, D. C., July 1, 1891.

SIR: I have the honor to submit herewith the report of the work accomplished by the law division during the fiscal year ended June 30, 1891.

APPEAL DESK.

During said period there were received motions for reconsideration of former departmental decisions.....	157
Appeals on question of title.....	3,529
Total appeals received.....	3,686
Reports to the Secretary on pending appeals.....	2,832
The action of this Bureau was affirmed by the Secretary in cases.....	2,392
The action of this Bureau was reversed by the Secretary in cases.....	281
Former departmental decisions reversed on motion for reconsideration...	94
Action reversed by this Bureau and claims allowed with appeals pending.	613
There are now pending, awaiting reports, appeals	2,761

In rendering reports on the appeals filed, the cases have been taken up, as far as possible, in regular order of dates of calls therefor, except in cases where report has been specially called for by the Department, and as far as practicable all appeals have been acted on up to October, 1890, the force of the section now being engaged on the departmental calls of said month.

ATTORNEYS' DESK.

Report of records searched and work performed relative to the status of attorneys, notaries public, and justices of the peace, before this Bureau :

Original, including Mexican and dependent claims.....	708, 998
Increase claims	121, 925
Examiners' slips.....	6, 721
Circular letters sent with blank oaths of allegiance and instructions to those desiring recognition as attorneys or agents.....	3, 029
Certificates of qualifications and oaths received from applicants for attorneyship forwarded to the honorable Secretary of the Interior for his consideration	600
Names enrolled on roster of new attorneys empowered by the honorable Secretary of the Interior to prosecute claims before this Bureau	2, 558
Orders of honorable Commissioner of Pensions affecting attorneys received and noted on roster	66
Transfers	98
Disbarments.....	11
Prohibitions under section 190, Revised Statutes.....	24
Prohibitions under section 5498, Revised Statutes.....	36
Prohibitions under section 1782, Revised Statutes	3
Prohibitions under section 190, Revised Statutes, ceased	33
Prohibitions under section 5498, Revised Statutes, ceased.....	40
Restorations to practice.....	20
Deaths	49
Changes of address and additional address.....	181
Papers containing charges against or relating to attorneys' jacketed names endorsed on index and placed in attorneys' files.....	472
Papers forwarded to other divisions.....	3, 298
Slips answered from the different divisions asking the status of notaries public and justices of the peace.....	18, 277
Circular letters addressed to notaries public and justices of the peace	1, 557
Certificates as to the official character of notaries public and justices of the peace received, recorded, and jacketed.....	10, 228
Imperfect certificates returned for correction.....	1, 345
Blanks sent to notaries public and justices of the peace to be used by clerks of court in certifying to their official character	436
Notarial commissions returned	93
All letters written	2, 482

CRIMINAL SECTION.

Number of cases acted upon	2, 020
Number of cases undergoing action	54
Number of letters prepared	11, 088
Money illegally withheld, recovered by special examiners and turned over to pensioners	\$7, 000. 75
Money illegally obtained recovered by special examiners and covered into United States Treasury.....	19, 946. 71
Money illegally obtained recovered by suit and paid in	7, 932. 16
Total.....	34, 879. 62
Judgments awarded in favor of United States but not yet realized on	\$6, 338. 61
Civil suits instituted for recovery of money	3
Judgments in favor of United States in civil suits	8
Gross value of said judgments.....	\$14, 270. 77

Cases submitted for criminal prosecution	223
Arrests	126
Indictments	236
Convictions	176
Sentences	130
Acquittals	10
Nolle pros	8
Abatements by death	2

COMPLETED FILES.

Requests that cases be placed on completed files, examined, and referred to adjudicating divisions, approved.....	240,484
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FEE SECTION.

To this section is assigned :

- (1) The settlement of contested questions of attorneyship and fees.
- (2) The preparation of reports to the Secretary of the Interior in appeals from the action of the Commissioner of Pensions on question of attorneyship and fees.
- (3) All complaints against agents and attorneys in the prosecution of claims before the Bureau, and the preparation and presentation to the Secretary of the Interior of all reports and recommendations for disbarment and restoration.
- (4) All complaints against magistrates for malfeasance in connection with claims for pension and bounty-land.
- (5) The certification of all abstracts from the records, and the originals and copies of all papers for use as evidence in the executive departments and the courts.

QUESTIONS OF ATTORNEYSHIP AND FEE.

Letters written	12,488
Cases referred to other divisions.....	5,386
Cases disposed of.....	9,300
Briefs amended	2,816
Cases pending June 30, 1891.....	248
Reports prepared to the honorable Secretary of the Interior on appeals ...	658
Decisions of the honorable Secretary of the Interior affirming action of the Bureau.....	306
Decisions of the honorable Secretary of the Interior reversing action of the Bureau.....	26
Decisions of the honorable Secretary of the Interior modifying action of the Bureau.....	16
Amount of illegal fees refunded on request of this division.....	\$7,186.95

MISCELLANEOUS WORK.

Special examiners' reports on complaints examined and disposed of.....	288
Cases submitted to the honorable Secretary of the Interior recommending disbarment of attorneys.....	15
Cases submitted to the honorable Secretary of the Interior recommending restoration of attorneys.....	12
All of which is respectfully submitted.	

M. B. BAILEY,
Law Clerk.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF MEDICAL REFEREE.

SIR: In compliance with your request, I have the honor to submit the following report of the work done by the medical division of this Bureau for the year ending June 30, 1891. No radical changes in the methods of procedure have been made in this division since my former report to you.

The plan of work adopted under your administration has greatly simplified the methods of procedure in this division, and is believed to be very effective.

The strictly medical work of the division is performed by a corps of medical examiners and reviewers, with another lesser number of medical men engaged in examining certificates as they are received.

The work which comes before the medical division consists in determining the nature and degree of pensionable disabilities and sequences thereof, and the proper rate of pension therefor; and in widows' claims, under acts prior to that of June 27, 1890, in deciding whether the cause of death was due to disabilities incurred in the service. These cases are submitted through the board of review.

In addition to the above a large number of cases is received from the several adjudicating divisions and board of review requesting medical opinions upon various questions of pathological sequences, etc.

By the rules of the office examinations are ordered by the medical division in the following list of cases:

- (1) All original claims rejected on medical grounds.
- (2) All increase claims rejected on medical grounds in which the expediency of ordering another medical examination is dependent on new medical evidence filed.
- (3) All cases where pensioners have been reduced or dropped on medical grounds.
- (4) Cases in which examinations are to be made at home or in a hospital.
- (5) Cases in which examinations are to be made by specialists.
- (6) Cases in which examinations are to be made by civil or foreign surgeons.
- (7) All cases in which there is a question of syphilis which has not been eliminated.
- (8) All cases of insanity.

In the above list of cases special instructions to the examining surgeons are prepared by this division, setting forth the nature of the disability and sequences claimed, and suggesting such specific inquiries and examination as will elicit a clear clinical history of the case. The corps of surgeons employed in the above work comprises 46 engaged as medical examiners and 21 as reviewers.

The work as it reaches the division is received by the file clerks and is carefully assorted as to its character, and dated, and is further divided into ten parcels, determined by the terminal figure in the number of the claim. A record is kept of each claim, and the cases are distributed to the medical examiners in accordance with the above division. This method of distribution enables the file clerks to find any case in the division at any time with but little inconvenience and search, and also secures an equitable distribution of each class of claims among the several medical examiners.

The work is distributed among the medical examiners in the order of its being received, preference being given to original claims. Each examiner is required either to take action upon the face of the brief, to prepare a medical opinion or instructions for the examining surgeons in the work distributed to him. The work is then submitted to the medical reviewers and is carefully scrutinized by them in each and every particular before concurring in the proposed action.

The medical referee requires all claims made special by the commissioner, all claims on appeal submitted from the Secretary of the Interior, all claims involving the question of rerating, all cases where the action of rejection is proposed in original invalid or widows' claims, all claims involving the grade rates, and all cases involving large amounts of arrears, to be brought to his room for further consideration and review by himself and assistants.

All work receives the signature or stamp of the medical referee, and is then recorded by the file clerks, charged, and delivered to the proper division.

An analysis of the above work performed by the corps of medical examiners shows for the year ending June 30, 1891, that of the original claims submitted, 150,636 were admitted and rated for pension; that 9,830 were rejected, and that 14,424 were, for the time, otherwise disposed of, either by returning with opinion or by ordering a new examination; that of increase claims submitted, 76,211 were admitted, 34,426 were rejected; and in 5,821 the claimants were either ordered for a reëxamination or the claims returned to the board of review, with medical opinion requesting further evidence, etc.; that of the new-disability, restoration, and reissue cases submitted, 9,729 were admitted, 1,012 were rejected, and 1,562 were otherwise disposed of as above.

Of claims submitted from board of review for opinion, and returned with medical opinion, there were 5,387.

Of claims submitted from the different divisions, in which medical examinations were ordered, or in which medical opinions were rendered, there were 23,530, making a grand total of 332,568 cases acted upon by the medical force in the 306 working days of the year, a daily average of 1,086 claims.

The further work of the medical division comprises the recording of all orders for medical examination, and the mailing of these orders, one copy to the secretary of the board or single surgeon designated to make the examination, and a duplicate order to the soldier to appear before such board or single surgeon.

The total number of orders so recorded and mailed for the year amounted to 603,641, being a daily average of 1,972. Upon the receipt of the certificates of examination in the medical division they are carefully examined by a corps of surgeons. These certificates are carefully read with a view to detecting the more evident errors which may have occurred in the manner of examination and construction of the certificates. In this direction a persistent effort has been made to improve the character and completeness of the examinations of soldiers, and to insure promptness in preparing and forwarding the certificates by the examining surgeons.

By reason of the large number of examinations made in consequence of the act of June 27, 1890, the work done by this section has been very great, there having been received a total of 473,875 certificates during the year. Of these, 448,526 were found acceptable at once, while 25,349 were returned for amendment. The number of these certificates received has varied from 1,000 to 3,000 a day. The daily average for the year has been 1,548.

After the medical character and completeness of these certificates has been passed upon, they are turned over to the section of accounts and are carefully compared with the accounts rendered by the examining surgeons, the charge made by the surgeon for the amount of work done each day being carefully verified before being accepted and approved. The receipt of each certificate is recorded opposite the record of the order sent out. A large number of orders are returned by the examining surgeons, wherein the soldier has not reported for examination within the time designated by law, and this fact is also recorded opposite the order for examination. For the year there has been returned no less than 57,149 of the above orders in which the claimant failed to appear.

The number of accounts of boards of surgeons passed upon and approved during the year which ended June 30, 1891, amounted to 3,961, and of those awaiting approval at the end of the June quarter, being delayed because of returned certificates, or some failure on the part of the surgeons to comply with the requirements of the office, there were 341, making a total of 4,302.

Since the approval of these accounts requires a careful comparison of the certificates with the accounts rendered, taking into consideration the number of examinations made on an examination day, etc., the work of this section has for the year been very large and important.

Besides the above, under the direction of the Commissioner of Pensions, the medical referee has charge of directing the methods and work of the examining surgeons throughout the country. The boards of surgeons number 1,166; single surgeons 379, and experts 124. These surgeons receive general directions through the pamphlet of instructions sent them, a new edition of which under date of July 1, 1890, was prepared and distributed. In this pamphlet there has been an effort to set forth specifically the requirements of the office, with some suggestions as to the proper method of conducting examinations and preparing certificates.

It has been the aim to secure from the examining surgeons more complete descriptions than has been heretofore required, partly because the act of June 27, 1890, directs that pensions shall be allowed for all existing disabilities not the result of vicious habits of the claimant, and also because complete clinical histories of all the disabilities from which the soldier suffers up to the time of his death are of the greatest importance in determining the actual cause of death and in adjudicating widows', minors', and dependent claims.

In issuing instructions to the examining surgeons it has been the aim of the office to secure, as nearly as possible, uniformity in describing similar disabilities so that it may be enabled to reach a uniform and just distribution of pensions under the laws.

Schemes of ratings and methods of estimating degrees of disability are given in these instructions to aid the examining surgeons in framing their certificates. In addition to the book of instructions, circulars bearing upon special points concerning examinations were issued to boards of examining surgeons December 10, 1890, February 5, 1891, and one modifying the method of describing and defining degrees of partial deafness was sent them June 27, 1891. Connected with and concerning these boards there has been answered by this division during the year 1,545 letters.

The official force of this division now numbers 160, including 20 medical examiners and several clerks added in the latter part of 1890.

With the increased amount of work and the largely increased number of employés, and the still further necessity of adopting methods which will secure the greatest expedition and correctness in the disposition of cases, since the close of the fiscal year I have, with your permission, adopted a scheme in the matter of recording and distributing the work to medical examiners and reviewers which will, I think, both increase our work and greatly insure its correctness.

The work will be charged to examiners and reviewers in the order of its being received, in bundles of twenty-five, with a slip attached bearing the names and numbers of the claims, each examiner and receiver being required to complete this list of cases before forwarding them. The date the claims are received determines the order of taking action, and the plan will relieve the medical examiner and reviewer of much time heretofore taken in recording his work.

The force is divided as follows: One medical referee; 1 assistant medical referee; 2 qualified surgeons; 2 principal examiners; 38 medical examiners and 3 fourth-class clerks; 7 third-class clerks; 17 second-class clerks; 10 first-class clerks and 2 clerks at \$1,000 employed in medical work; and 3 clerks of class three; 14 of class two; 27 of class one; 16 at \$1,000; 12 at \$900; 2 messengers at \$840, and 2 messenger boys at \$400 employed in clerical work.

Tabular statement of work done in the medical division for year ending June 30, 1891.

	Admitted.	Rejected.	Returned with opinion or ordered for examination.	Total acted upon.
Original claims	150, 636	9, 830	14, 424	174, 890
Increase claims	76, 211	34, 426	5, 821	116, 458
New disability, restoration, and reissue	9, 729	1, 012	1, 562	12, 303
Total	236, 376	45, 268	21, 807	303, 651
Claims submitted for medical opinion			5, 387	} 28, 917
Claims submitted for ordering examinations			23, 530	
Total			50, 724	332, 568

Orders to claimants for medical examination recorded.		Certificates of examination received and recorded.	
Month.	No.	Month.	No.
July	28, 005	July	42, 557
August	21, 562	August	22, 183
September	22, 713	September	24, 676
October	33, 698	October	24, 292
November	28, 499	November	19, 194
December	58, 752	December	24, 264
January	73, 010	January	44, 888
February	68, 736	February	26, 430
March	84, 276	March	44, 131
April	63, 230	April	70, 950
May	64, 432	May	66, 037
June	56, 728	June	65, 078
Total	603, 641	Total	474, 680
Daily average of orders	1, 972	Daily average of certificates	1, 551

Orders issued for expert, special at home, foreign, and civil examinations.*		Certificates received, expert, special, foreign, and civil examinations.†	
Class.	Number.	Class.	Number.
Expert	2, 859	Expert	2, 010
Special at home	4, 266	Special	3, 035
Foreign	626	Foreign	465
Civil	3, 035	Civil	2, 035
Total	10, 786	Total	7, 545

* Included in the above tabulation of orders recorded.

† Included in the above tabulation of certificates received and recorded.

Surgeons' certificates examined:		
Accepted on first receipt		448, 526
Returned for amendment		25, 349
Total		473, 875
Daily average of certificates examined		1, 548
Number of orders for medical examination returned by boards in which claimants failed to appear		57, 149
Number of orders for medical examination issued by this division with special instructions ..		34, 225
Number of letters answered		1, 545

Respectfully submitted.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

THOS. D. INGRAM,
Medical Referee.

REPORT OF BOARD OF REVIEW.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 16, 1891.

Mr. COMMISSIONER: I have the honor to submit the following report of the work of the board of review for the year ending June 30, 1891:

The total number of cases (of all classes) acted upon was 365,989. Action was taken in these cases as follows:

	Admitted.	Rejected.	Returned (for further evidence).	Returned (for other reasons).	Total.
Original claims:					
Act June 27, 1890.....	105, 166	15, 719	13, 602	18	134, 505
Other laws.....	55, 146	9, 384	17, 292	651	82, 473
					216, 978
Increase claims:					
Act June 27, 1890.....	11, 208	2, 523	1, 351	3	15, 085
Other laws.....	67, 189	44, 707	10, 197	1, 473	123, 566
					138, 651
New disability claims:					
Act June 27, 1890.....	32	61	-----	-----	93
Other laws.....	8, 614	1, 653	-----	-----	10, 267
					10, 360
Grand total	-----	-----	-----	-----	365, 989

The average number of cases of all classes reviewed by the board of review per working day during the year, was 1,216.

The board of review numbered, on an average, during the year, 60 reviewers.

There were 16,028 actual days' work performed in the board of review during the year.

There were 2,152 days of absence and 1,143 of detached duty.

Cases submitted for the action of the board of review are received by the file clerks, who place them in systematic order according to date. From that point the files section notes all the whereabouts of the case in its final adjudication, whether to the reviewer, to the medical division, to the raters, to the adjudicating divisions, and so on, so that, at any moment, an account can be given.

The chiefs of the review sections are charged with the general supervision of work in these sections.

If a reviewer needs work, his chief at once notifies the chief of the board, and to such reviewer a certain number of cases are charged in the order of the date of their receipt. No person knows, in advance of its review, into whose hands a case will be placed for examination. The reviewer who receives it examines the evidence and enters his findings on the brief, the wound, injury, or disease, proved to have arisen in the service, the facts as to its continuance or as to an alleged sequence. This action then forms the basis of the medical action in the case.

After the judgment of the reviewer is entered, it receives general supervision by the chief of section. All original cases for admission are again reviewed by section 1 of the board of review, which has that duty specially assigned to it. If concurrent action is reached, the legal status of the case is fixed, subject to the approval of the Commissioner.

All claims for increase, when no additional disability has been set up, after having been once reviewed, are forwarded to the medical division, where the rate of pension is fixed, based upon the medical examination had under the pending application.

All claims for increase in which a new disability is alleged, which are allowed, re-

ceive a second review in the board of review before being sent forward to the medical division.

All cases rejected or to be returned to the different adjudicating divisions by reason of the insufficiency of the proof, are again reviewed in the board of review by persons specially assigned to that duty.

After the amount of fee to be paid the attorney has been duly noted in its proper place on the fee agreement by clerks designated for that purpose, the case is entered on the records and sent to the certificate division for issue of certificate.

If a case is made special by the Commissioner, it goes to one clerk, whose records are so systematized that it is next to impossible for such a case to rest, from oversight or any cause, in this board.

The evidence and correspondence relating to cases that are forwarded to the board to be placed with cases pending before it, are also received by the files section and then placed with the case, or the whereabouts of the case are noted, and the paper forwarded at once to it.

The reviewer is guided by the rulings of the Commissioner in his general work. In the exercise of his judgment he endeavors to be broad and humane and to avoid narrowness. At the same time he must be watchful to protect the Government against any imposition that may be sought to be practiced against it.

If the action has been unfavorable, the case is returned to the adjudicating division whence it came, that a letter of rejection, or one pointing out the deficiencies of proof, may be written.

It is not to be expected that a body of men acting on their honest convictions, even within the limits of the rulings and practice of the Bureau, will reach exactly uniform decisions, but the effort is constantly made to make them substantially so, by the publication of the percentage of cases that each objects to, and by the decisions and instructions of the Commissioner and his chiefs.

Very respectfully,

J. R. VAN MATER,
Chief Board Review.

REPORT OF CHIEF OF EASTERN DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 12, 1891.

SIR: Complying with your order, I have the honor to submit the following report of the organization and work of adjudicating claims in the eastern division, together with the character of the same.

The business of the eastern division is the adjudication of all classes of claims on account of the service of organizations credited to the New England States and New York, New Jersey, and Delaware, in the war of 1861 to 1865.

The jackets in which cases are inclosed contain a brief history of the case on the face side of same, *i. e.*: Number of claim, name and post-office address of claimant, company and regiment in which service was rendered, date of enlistment and discharge and nature of disability for which pension is claimed, and name and post-office of the attorney in said case. A record of the nature of all testimony necessary to complete the claim is kept on the reverse side of the jacket, and on slips for that purpose to be kept inside of the case for the ready reference of parties interested in the claim.

It is the duty of the examiners of this division to examine carefully all claims referred to them, to determine what testimony is required to complete the same, and to make calls upon the claimant or his attorney for same. It will be seen by the above that the examiners are required to enter into voluminous correspondence for

the purpose of collecting the necessary testimony required, aside from the numerous calls that have to be made on the War Department to obtain such record as is absolutely required for the final adjudication of a case.

The division is divided into nine adjudicating sections, the force on the work of the files constituting the tenth. Sections A and B adjudicate claims filed on account of widows, minor children, and dependent mothers, fathers, and minor brothers and sisters, the number of examiners in each of said sections being 11 and 11 respectively. Sections C, D, E, F, and G are composed of 20, 11, 21, 11, 18, 12 examiners respectively, and are employed in the work of adjudicating original invalid claims. Section H is composed of 15 examiners who are employed on claims for additional pension on account of new disabilities, alleged in the original declaration and not proved, or in subsequent declarations for increase, or otherwise. Section I is what we call our miscellaneous section. It numbers 18 examiners, who are charged with the disposition of questions, and the consideration of evidence filed after the final adjudication of claims with a view to reopening same for the further benefit of pensioners. The rejected cases are looked after by competent persons detailed for said work and are also included in this section, together with clerks detailed for designating and ordering medical examinations in all classes of claims requiring same, and all claims for increase, reissue and restoration of pension are likewise prepared for the consideration of the board of review in this section.

The work on the files of this division is voluminous and complicated, and is performed by a force of 29 men, who are charged with the care and custody of all of the pending claims charged to this division, together with the evidence belonging to said claims. The file clerks furnish work to the examiners as it is called for, by drawing the claims as nearly as possible in the order of filing and keeping them in proper place for ready reference when called for by authorized persons. A record of all cases handled and disposed of by the examiners of the division is kept by a record clerk detailed for that purpose. The correspondence of the division is all reviewed by a competent clerk, which is his especial care. Each section in the division is presided over by a competent chief, whose duty is to review the work of his section, and be responsible to the chief of the division for its efficiency.

This division has briefed and submitted to the board of review 58,609 original, 15,165 increase, and 1,202 accrued pension claims, making a grand total of 74,976. We have written 51,889 letters, sent out 369,556 circulars, have drawn from the files and handled 161,707 cases, made 288,597 calls for evidence, and issued 87,876 orders of examination.

The entire number of persons employed in the division during the present year has varied from 118 to 180, the latter being the number now employed.

In the adjudication of claims by this division, the greatest care has been exercised in the examination of the proofs required by law on file with the papers, and no partiality or favoritism has been shown either claimants or attorneys in the settlement of said claims.

In closing I desire to speak of the uniform cheerfulness with which the immense volume of labor has been performed by the clerks in this Division, and while all promotions made have been meritorious it still leaves clerks who merit same but would require an act of Congress changing or enlarging the higher class grades before provision therefore could be made.

The chief of division and his assistant have general oversight of the entire division, and are responsible to the Commissioner for the work of the same, endeavoring always to reach such a standard of efficiency as will be a source of pleasure to the Commissioner of Pensions as well as a gratification to all having business with the Bureau.

All of which is respectfully submitted.

WARNER WILHITE,
Chief, Eastern Division.

HON. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF CHIEF OF SOUTHERN DIVISION.

DEPARTMENT OF THE INTERIOR,

BUREAU OF PENSIONS,

Washington, D. C., September 14, 1891.

SIR: In compliance with your request, I have the honor to submit the following report:

The southern division is charged with the adjudication of all claims on account of service during the war of the rebellion in military organizations, organized in the States of Alabama, Arkansas, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the United States colored troops.

There was an average of less than 150 employed in this division during the fiscal year ending June 30, 1890, yet we were nearer up with the current work at the end than at the beginning of the year, notwithstanding the very large number of claims filed as a result of the act of June 27, 1890.

Orders for examinations in all claims for increase under the old law have been made within a few days after the claim reached this division from the record division.

Calls upon the War Department for reports of soldier's service have been made, and reports received and examinations ordered in practically all claims filed under the act of June 27, 1890, and in all original claims when the service alleged was a pensionable service.

There have been thousands of claims filed by, and on account of, persons who rendered service in local State organizations, the members of which are not pensionable under the general law. More time is consumed in settling these claims, and the correspondence following their rejection, than is required to settle the ordinary claims of parties who were in a pensionable service.

From the beginning of the year until after Congress adjourned in March the work was materially delayed, owing to the efforts made to answer the very large number of inquiries made by Members of Congress. A comparison of results from April to June, 1891, inclusive, with results of any period of three months prior to that time, will afford very conclusive evidence of the amount of time devoted to answering these Congressional inquiries. I can suggest a remedy, and take the liberty of doing so, that will materially lessen the work in that direction. A very large percentage of the calls made by Members of Congress relate to the claims of persons who are now receiving pensions, and whose claims can not be considered without injustice to those claimants who are not receiving a pension. I presume that Members of Congress would not call up these claims except in urgent cases if their attention was called to the facts.

There is now employed in the settlement of original invalid claims a force of 64 clerks, constituting two sections. Twenty-four clerks in the widows' section are engaged in the settlement of the claims made by widows, minors, and dependent relatives; 24 in adjudicating new disability and increase invalid claims, while 6 clerks are attending to the correspondence in admitted claims, and examining and advising as to the reopening of rejected claims of all classes. The services of 29 active, accurate men are essential to the proper care of the files. That their work was well done is evidenced by the fact that all testimony which contained sufficient data to enable the file clerks to identify the claims without reference to the record division was filed with the claims within 3 days after it reached this division.

The fact that 177,486 claims were examined, 429,381 calls made, 132,816 medical examinations ordered (each order requiring an examination of the map and filling of two circulars), and 70,460 claims submitted to the board of review, of which number 45,859 were admitted and the balance rejected or submitted to the special examina-

tion division for further investigation, would appear conclusive evidence that the employés in this division, with very few exceptions, have taken as great an interest in the work as if personally responsible for it. Yet very many of the most industrious and intelligent clerks are receiving salaries too small to enable them to support their families respectably. Should not the attention of Congress be invited to this matter?

In the adjudication of claims especial care has been taken to see that no partiality or favoritism was shown to any attorney or claimant. Claims have been taken up in the order in which they were received and the necessary calls made, after which the "regular order" changed, and those claims were first considered in which the evidence was first furnished.

Very respectfully,

F. H. ALLEN,
Chief, Southern Division.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF CHIEF OF MIDDLE DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 14, 1891.

SIR: Referring to the organization of this division and the work upon which engaged during the past year, I have the honor to submit the following statement:

The work of this division pertains to the consideration and preparation for adjudication of claims made by or on account of soldiers who served in the war of the rebellion from the States of Pennsylvania, Ohio, and Michigan.

At the commencement of the fiscal year the total number of employés in the division was 138. During the early months of the year the number was largely decreased by transfer of clerks to other divisions of the Bureau. By the reassignment of such clerks as had been employed in other divisions and the assignment of new appointees the number was gradually increased throughout the year to 187.

There has been no material change in the organization of the division, which is divided into sections as follows:

Section A, now comprised of 24 clerks, has been engaged in the adjudication of the claims of widows and dependent relatives of deceased soldiers of the late war.

Section B, now comprised of 42 clerks, has been engaged in the adjudication of claims for original invalid pension and claims for pension on account of additional disabilities.

Section C, now comprised of 44 clerks, has been engaged in the adjudication of claims for original invalid pension.

Section D, now comprised of 28 clerks, has been engaged in issuing orders for medical examinations in claims for increase on account of disabilities for which pension has been heretofore allowed, also the submission of these claims and other work attending their adjudication.

The file section, now 39 clerks, has been engaged in applying evidence, as received, the consolidation of claims under the act of June 27, 1890, with claims made by the same applicants under former laws, and such other work of various kinds as is necessary to keep properly arranged and accounted for more than 270,000 claims.

To keep all claims properly filed and the testimony pertaining to each applied, is, as you are aware, of the highest importance in order to prevent the duplication of calls for evidence already in the office.

To so keep the files during the period in which so large a number of claims has been made under the act of June 27, 1890, made it necessary to increase the force of file

clerks by a number equivalent to the total increase of force growing out of the assignment of new clerks to the division. so that there has been really no material increase in the number of clerks employed as examiners.

The work throughout the year has been so pressing that, in carrying into effect your orders, examiners have been changed from time to time, giving them temporary employment upon a class of claims farthest in arrears, so that the statement showing the character of work to which examiners are regularly assigned can not be accepted as showing that they have been employed thereon continuously throughout the year.

During the year this division submitted to the board of review for adjudication 43,737 original claims under the act of June 27, 1890, and 27,980 under former laws; 12,043 claims for increase under the act of June 27, 1890, and 40,369 under former laws, making a total of 124,129 claims submitted. It prepared and mailed 397,688 letters and circulars in giving the condition of 185,252 claims.

It sent 354,974 circulars in issuing orders for medical examination in 177,487 claims, making a total of 752,662 letters and circulars which does not include many thousands of letters and circulars written in rejected claims and in miscellaneous correspondence. In the consideration of claims by this division no preference or partiality is shown to applicants or attorneys. On the contrary, submissions, made in the discretion of the examiners, are based upon the sufficiency of the evidence as determined by them in the exercise of their judgment under the rules governing the practice of the Bureau.

In closing I would like to say a word in commendation of the employés of this division; but the great amount of work done and the very large number of claims disposed of as reported above speak for their industry in language so emphatic that any words from me would convey a meaningless compliment indeed.

If such action were taken by Congress touching salaries as would make it possible to secure promotion for the many clerks in this division whose pay is not commensurate with the value of their services, I would be glad to make recommendations which, if carried into effect, would combine substantial compliments with acts of justice, in many cases, long delayed.

Very respectfully,

W. N. REYNOLDS,
Chief, Middle Division.

Hon. GREEN B. RAUM,
Commissioner.

REPORT OF CHIEF OF WESTERN DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 12, 1891.

SIR: Herewith is submitted a report of the operations of the western division of this Bureau for the fiscal year ending June 30, 1891.

There are at present on the rolls of the division 200 employés. The claims handled in the division are those arising out of service during the war of the rebellion in military organizations from the States of Indiana, Illinois, Iowa, Wisconsin, Kansas, Nebraska, Colorado, Nevada, California, Oregon, North Dakota, South Dakota, Montana, Minnesota, Washington, and the Territories.

The claims when received in the division are arranged numerically in file boxes by classes, namely: invalid, widows and dependents, and those cases that have been once adjudicated and now bear a certificate number. The total number of claims handled during the year and in which certificates were issued is embodied in the general tables which appear elsewhere in your report.

In all original cases the first action taken is to call upon the War Department for a record of the service of the soldier and for such hospital data as they may be able

to furnish. If there is a record of the disability claimed for no call for evidence showing origin of the same in the service is made; but if there be no record such evidence is called for by the division. At the same time a call is made for evidence showing the existence of the alleged disability at the date of discharge and the continuance of the same year by year thereafter in all cases arising out of disease.

The character of all correspondence had in any claim while in process of adjudication is noted upon the jacket and upon calls for evidence cards accompanying each claim, and when all, or any part of the evidence, has been received the same is noted both upon the jacket and upon the card. When all of the evidence required in the adjudication of a claim has been received the case is forwarded to the examiner, who arranges it in the form of a brief, when it is submitted to the board of review for its action. Cases favorably acted upon are not again returned to the examiner, but in all cases in which the action is unfavorable, the claim is returned that the examiner may send out the proper notice of rejection.

During the year there were received in the division 7,639 claims filed under the act of July 14, 1862, and March 3, 1873; 92,165 original invalid claims filed under the act of June 27, 1890; 38,645 claims for increase of invalid pension; 5,486 claims of widows, minors, and dependents filed under acts of July 14, 1862, and March 3, 1873; 25,853 claims of widows, minors, and dependents filed under act of June 27, 1890. In addition to this there were received 28,010 claims filed under the act of June 27, 1890, and consolidated with claims in which a certificate had been issued under former laws; making a total of 197,798.

The work of the division during the year, as relates to calls and letters sent out, is as follows:

Written letters.....	84,527
Circular letters	108,237
Department calls	87,857
Medical examinations ordered.....	116,832
Other correspondence	17,591
Total.....	415,044

It has long been the custom of the office to give the status of claims to claimants and correspondents through members of Congress. During the last fiscal year there were received in the division 55,320 Congressional inquiries.

The division is divided into eight sections. One section devotes its time exclusively to the adjudication of increase pension claims, one to the adjudication of new disability claims, one to the adjudication of the claims of widows, minors, and dependents, and four sections devote their time to the adjudication of invalid claims filed under the acts of July 14, 1862, March 3, 1873, and June 27, 1890, and one section is in charge of the files.

Each section is presided over by a section chief, who is held responsible for the work done in his section.

At the close of the fiscal year a careful count of the files of the division was made and it was shown that at that time there was pending in the division of all classes, of claims unadjudicated a total of 271,200. At the time the count of the files was made care was taken to list all cases that appeared complete, and the total number on this list was 23,307. In other words, there were that many cases upon the completed files of the division many of which had been placed there upon the certification of attorneys and claimants, and not a few by the action of the office. A large part of that number has since been drawn and acted upon.

At the beginning of the last fiscal year there were in the division about twenty thousand claims for increase of pension in which no medical examination had been ordered. I am pleased to be able to state that at the commencement of the present year there was not of that class of claims in the files of the division to exceed five hundred.

In the adjudication of claims no favoritism has been shown to either claimants or attorneys. Cases have been taken up for action as nearly in the order in which they were filed as possible. In this connection I may say that the attorney who promptly complied with the requirements of the Bureau would earlier get his claim before the board of review.

It is a pleasure to me to bear witness to the fidelity, zeal, and capacity of the force of the division, to the chiefs of section, especially to the assistant chief of the division.

I have the honor to be, very respectfully yours,

R. A. DURNAN,
Chief of Western Division.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF CHIEF OF OLD WAR AND NAVY DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 10, 1891.

SIR: I have the honor herewith to submit the report of the old war and navy division of this Bureau for the fiscal year ending June 30 last.

The several separate and distinct kinds of claims received and adjudicated in this division may be classified as follows:

First. Old war-pension claims—including all claims by soldiers or their widows or orphan children—for disability or death due to service in Regular Army or volunteers, sea fencibles, rangers, or militia, prior to March 4, 1861, entitled under laws passed prior to July 14, 1862.

Second. Navy invalid-pension claims and claims for pensions by the widows and minor children of sailors, whether the service was rendered prior to, during, or subsequent to the late war, and claims by dependent relatives of those who have served since March 4, 1861, as well as service pension claims under the act of March 2, 1867 (sections 4756, 4757, Revised Statutes), of those sailors who have rendered either 10 or 20 years of faithful service. Also claims under act of June 27, 1890.

Third. Claims by soldiers of the Regular Army or their widows, minor children, or dependent relatives, on account of disability or death due to service rendered in or subsequent to the war of 1861, including those volunteers of the late war who were members of the Veteran Reserve Corps, Hancock's Corps, the United States regiments composed of persons from the rebel army who were enlisted in the Union Army, the Mississippi Marine Brigade, the gunboat flotilla, the ram fleet, general and staff officers of volunteers, provost marshals, and enrolling officers; in brief, members of all organizations whose officers were commissioned by the President, except such colored troops as did not belong to the Regular Army. Also claims under act of June 27, 1890.

Fourth. The service-pension claims of the war of 1812, acts of February 14, 1871, and March 9, 1878. A few claims of this class are now being allowed to soldiers and their widows.

Fifth. Service-pension claims of the Mexican war, act of January 29, 1887.

Sixth. Bounty-land claims of every character. Land warrants are granted only for service rendered prior to March 3, 1855. The necessary examinations and searches to prevent the issue of duplicate warrants demand much time and careful labor.

All the records except those of the Regular Army are kept in the division, which necessitates six complete sets of files and five complete sets of records. All jacket-

ing, numbering, searching, recording, and notifying of claims adjudicated by this division (except for Regular-Army claims) is done in this division.

At the close of the last fiscal year the force of the division consisted of 79 persons, employed as follows:

(1) One principal examiner, acting as assistant chief, who, in addition to general duties in connection with the division, has charge of old war invalid, original and increase pension claims, Mexican war service-pension claims, war of 1812 service-pension claims, military bounty land claims, correspondence in all the classes of admitted land claims adjudicated in the division, correspondence regarding service in the war of the Revolution and revolutionary claims, and miscellaneous correspondence relative to title to pension, bounty land, etc. This section employed 7 clerks in addition to the chief of the section.

(2) One assistant chief, who, in addition to his general duties in connection with the division, has charge of all the files, records, jacketing, searching, numbering, and notifying. This section gave employment to 27 clerks in addition to the chief of the section.

(3) One section is engaged in adjudicating invalid claims for pension on account of service in the Regular Army since March 4, 1861, which arise under the general laws or laws prior to that of June 27, 1890, and gave employment to 13 clerks in addition to the chief of the section.

(4) One section is engaged in the adjudication of invalid claims for pensions on account of navy service where title accrues under the general laws, and gave employment to 6 clerks in addition to the chief of the section.

(5) One section is engaged in the adjudication of the disability pension claims of widows and dependent relatives on account of service both in the Regular Army and Navy since March 4, 1861, and both under the general laws and the act of June 27, 1890, and of the claims of all army and navy widows on account of service prior to March 4, 1861, and gave employment to 8 clerks in addition to the chief of the section.

(6) One section is engaged in adjudicating invalid claims on account of service in the Army and Navy during the late war, arising under the act of June 27, 1890, and gave employment to 11 clerks in addition to the chief of the section.

The legislation concerning bounty land and pensions for army and navy service prior to March 4, 1861, and the rulings and decisions relating thereto, are so intricate and even conflicting as to raise many questions difficult of adjustment, and to reduce materially the rate of settlement thereunder, to require a long apprenticeship and a high grade of intelligence in the clerks engaged in the examination of such claims, and to cripple the division seriously when such clerks are detailed to other work.

During the past year the division has submitted to the board of review 26,175 claims (of which 14,369 were admitted and 5,069 were rejected), has written 25,339 letters, sent out 119,101 circulars, and ordered 32,276 medical examinations.

Number of bounty land warrants issued during the fiscal year ending June 30, 1891, and acres covered by the same.

Warrants.	No.	Acres covered.
Original	48	7,440
Duplicate	10	1,160
Total .....	.....	8,600

I beg leave to state, in this connection, that there has been no discrimination either as regards the claimants or attorneys in the adjudication of the above-mentioned cases.

In conclusion I take great pleasure in testifying to the conscientious attention to duty of the clerks employed in the division, most of whom have been in the division for many years, and the record of their work for the past year is proof of their efficiency.

Very respectfully,

Hon. GREEN B. RAUM,
Commissioner.

C. W. FILER,
Chief of Old War and Navy Division.

REPORT OF ACTING CHIEF OF SPECIAL EXAMINATION DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 17, 1891.

SIR: I have the honor to submit herewith the following report of the operations of the special examination division for the fiscal year ending June 30, 1891. This division, as instituted, has control of all cases submitted by the adjudicating divisions of this Bureau, through the board of review, for the special investigation of points not covered by testimony filed by claimants themselves or by the attorneys employed by them for the prosecution of the claims named. These claims are forwarded from the adjudicating divisions to the board of review, with the recommendation for special examination, indicating in the slips of reference the points on which said investigation is to be made.

If approved by the board of review they are forwarded to this division, a brief of the testimony already on file in the claim is made, file slips prepared, and the cases regularly detailed to a special examiner in the locality where the claimant resides, and from him back to the Bureau, with the recommendation for admission, rejection, or further examination, as the case may be.

After the case is received by the Bureau from the last examiner (that is, the one making recommendation for final action) the case is forwarded to the board of review, accompanied by the reports made by all special examiners that have had the case from time to time, with the recommendation for final action, either admission or rejection.

The force of this division at the commencement of the fiscal year 1891 was, in round numbers, 340. The number of cases in the field approximate 9,000. The amount of work has steadily decreased from month to month during the year until now, July 1, 1891, the division has in its files and in the hands of special examiners 2,270 claims, and the field force has been correspondingly reduced from time to time from 340 until at the present time, July 1, 1891, it numbers 111.

During the period before mentioned there have been recovered in the way of illegal payments made to pensioners over \$50,000, and almost weekly during the past year has some person, violating the criminal statutes regarding pensions and pension claims, been arrested, tried, convicted, and sentenced.

The criminal portion of the work of this division has been nearly all conducted by a small force of special examiners in the field, some localities being comparatively free of criminals or criminal complaints.

The appropriation for the fiscal year 1891 for the payment of per diem and expenses for special examiners in this division, was \$415,000, of which amount \$67,400.20 was covered into the Treasury at the end of the fiscal year, and the appropriations for 1892 are \$215,000.

The large reduction of the force in the field increased the working force of the Bureau to such an extent that the work on cases under the act of June 27, 1890, has been well gotten up.

While the number of cases in the field has been greatly reduced, as has also the number of examiners, the cost per case of each examination made has been correspond-

ingly increased, for the reason that the districts over which said examiners have to operate are greater in extent, consuming more time, and greater expense in traveling.

With these suggestions I would add, that the field force as now constituted can be considered as efficient, if not more so, for the number than any other force that has been sent out from this division since the organization of this branch of the service.

Very respectfully,

FRED. C. PECK,
Acting Chief Special Examination Division.

REPORT OF CHIEF OF FINANCE DIVISION.

DEPARTMENT OF THE INTERIOR, BUREAU OF PENSIONS,
Washington, D. C., September 12, 1891.

SIR: In response to your instructions of a recent date, that I submit a report of the character of work with which the finance division is charged, together with the amount of such work transacted, during the fiscal year 1891, I have the honor to submit the following statement:

BUSINESS ASSIGNED TO FINANCE DIVISION.

It has control of all appropriations for the payment of army, navy, and Mexican pensions; arrears of army and navy pensions; fees and expenses of examining surgeons; salaries of pension agents, clerk hire, rents, fuel, lights, and contingent expenses at the eighteen agencies for the payment of pensions.

It issues requests on the Secretary of the Interior for requisitions for all warrants on the Treasury under each of the foregoing items of appropriation, and upon all settlements made by the accounting officers of the Treasury for lost checks, refundments, and reimbursements under section 4718, Revised Statutes.

It receives and records the accounts (weekly, monthly, and annual) of the pension agents, and examines and prepares for approval the expenses of the agencies upon accounts submitted monthly.

It keeps records of all disbursements for all purposes by the pension agents and of the balances of pension funds to their official credit, as well as of all other disbursements chargeable to any of said items of appropriation and of the balances of each in the Treasury of the United States.

It keeps the pension agents supplied with all necessary funds for payments under each item of appropriation before recited, as well as with all records, pension vouchers, blank checks, and other blanks needed for their official use, as well as all necessary stationery.

It is charged with the examination and preparation for approval of all official bonds of pension agents, and of all leases for quarters for pension agencies, and with all correspondence relative to the qualification and duties of said agents.

It receives and records monthly reports from each of the eighteen pension agents, showing the additions and losses to their rolls in each class of pensioners.

It is charged with the settlement of all claims under the acts of January 25 and March 3, 1879, granting arrears of pensions, and with the consideration of all claims under so much of the act of August 8, 1882, as authorizes payment of pension under certain conditions to the wives and the minor children of insane or imprisoned invalid pensioners.

It is charged with the duty of depositing in the Treasury of the United States all moneys illegally paid out of pension funds and recovered through the special examination division and referred to this division for that purpose, as well as with the essential correspondence with the Secretary of the Treasury in explanation of the said recoveries, in order that they may be covered into the Treasury to the credit of the proper appropriation, and also in collating the necessary data for certain tables

in the Commissioner's annual report and in the preparation in proper form of said tables.

It is charged with the duty of reviewing the correctness of the amounts found due to examining surgeons for pensions, and of preparing their accounts for payment by the United States pension agent in this city.

It is charged with the duty of explaining to the proper pension agents the money value of all allowances covering periods for which pension was previously allowed, the cases in point being described as "reissues."

It conducts all correspondence with pension agents and accounting officers of the Treasury in explanation of the official action of this Bureau; in the acceptance or rejection for payment of vouchers submitted by the agents to this Bureau for consideration; with regard to complaints from pensioners and others relative to delays on the part of pension agents in the payment of pensions; also with pensioners and others relative to title to pension under any of the acts hereinbefore referred to.

It is charged with the duty of computing from statistical cards the amounts due as first payments on, and the additional monthly cost of, all classes of cases issued by this bureau; and of preparing daily, weekly, monthly, and annual tabulations of the results of these computations.

It is charged with the duty of conducting the essential correspondence with the pension agents and with the accounting officers of the Treasury in connection with the suspension and resumption of all payments of pension and the dropping from the roll of the names of all pensioners whose title to pension has terminated.

It is charged with the duty of considering all claims of legal representatives under the act of March 1, 1889, to the accrued pension due to deceased pensioners who leave no widows and no minor children.

Amount of regular routine work performed by the financial division during the fiscal year 1891.

Pension requisitions	366
Notices to agents of requisitions.....	366
Pay requisitions	2,960
Refundment requisitions.....	476
Instructions in reissue cases.....	2,195
Attorneys' fees ordered paid.....	1,514
Arrears allowances.....	33
Cases dropped	399
Cases suspended.....	290
Cases reduced	306
Cases resumed.....	57
Letters written.....	11,448
Statistical cards computed and tabulated.....	114,284
Tabular statements furnished.....	692
Ex-surgeons' accounts reviewed, prepared for payment.....	351,970

Very respectfully submitted,

W. B. SHAW, JR.,
Chief Finance Division.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF CHIEF OF RECORD DIVISION.

RECORD DIVISION, BUREAU OF PENSIONS.

Washington, D. C., September 18, 1891.

SIR: In response to your request for a report of the organization and classification of the clerks and work performed in the record division, I have the honor to respectfully submit the following:

In February 3, 1890, when I assumed control of this division, there were 2 assistant chiefs and 80 clerks.

This force was increased, as the act of June 27, 1890, required, until the maximum of 338 clerks was reached.

Transfers to the other divisions were made from time to time as the work would permit, until the force now numbers 154, classified as follows: 1 chief, 2 assistant chiefs, 3 clerks of class 3, 19 clerks of class 2 (including one special examiner), 26 clerks of class 1, 48 clerks at \$1,000, 51 copyists at \$900, 1 messenger at \$840, 2 messengers at \$720, and 1 watchman at \$720.

The division is divided into four sections, each presided over by a section chief. Each section chief is required to personally supervise the work performed and make a daily report to the chief of the division; also to keep an accurate account of the presence, absence, or tardiness of each clerk, and make a daily morning report of the same to the "time clerk."

The work is distributed among the sections as follows:

Section A has charge of the time report; verifying and comparing services of all declarations received; jacketing old law original and increase applications; miscellaneous correspondence; correcting defective and returning "no-title" declarations; recording and making corrections in the alphabetical record; keeping a record of special-act cases; and briefing evidence.

Section B is devoted to jacketing new-law declarations and increase applications under the old law; verifying, numbering, and notifying cases under the old and new law; vacating duplicates and making general correction slips for the records; recording in the alphabetical combination and certificate records; reviewing all new-act cases as received from the mail division; distributing incomplete evidence to searchers and in turn to the respective divisions when complete; and briefing evidence.

Section C is employed in jacketing new-law declarations and increase applications under the old law; vacating duplicates and making general correction slips for the records; notifying cases under the old and new law; final searching of all evidence; searching Commissioner's specials and calling for data; recording in alphabetical records; numerically stamping all new-act declarations; and briefing evidence.

Section D is devoted to searching cases, evidence, specials, Congressionals, or whatever may require the assistance of the records; recording original cases, certificates of admitted cases, and corrections on the state records; verifying number and service on evidence, etc., sent from the adjudicating divisions to this division for correction.

This division also has charge of the certificates of disability and reports of the removal of charges of desertion, as forwarded to this Bureau by the Adjutant-General, and medical surveys and certificates of death in the Navy.

Declarations for original invalid and original widows' pensions, and applications for increase received for the fiscal year ending June 30, 1891, under acts of July 14, 1862, and March 3, 1873.

Invalid, original	20,199
Widows', original	17,302
Increase	138,835

Applications received under act of June 27, 1890.

Invalid	227,920
Widow	73,665
Prior applications under old acts	355,582
Total	655,175

Classification of work performed during the year.

Services verified	183,000
Increase applications jacketed	138,835
Invalid applications jacketed	} 674,800
Widows' applications jacketed	
Invalid applications searched	} 674,800
Widows' applications searched	
Invalid applications numbered	247,733
Widows' applications numbered	90,152
Invalid applications recorded	} 662,000
Widows' applications recorded	
Invalid jackets verified	} 483,642
Widows' jacket verified	
Certificates recorded, state records	94,198
Certificates recorded, combination records	94,198
Certificates recorded from slips, certificate records	121,200
Combinations recorded, combination records	337,884
Congressional inquiries searched	41,342
Miscellaneous specials searched	52,103
Congressional and miscellaneous letters written	3,943
Calls for data	25,642
Cases notified	662,000
Corrections on records	16,153
Slips written from original cases	337,884
Evidence and letters briefed	215,194
Evidence and letters searched	371,218
Evidence researched and disposed of	339,862
Senate committee slips searched	2,365
Cases recorded on alphabetical records	315,642
Telephone calls	14,983
Applications, Mexican war, recorded under act of June 29, 1887	1,329
Admitted cases, Mexican war, recorded	547
Rejected cases, Mexican war, recorded	104
Letters written to correct defective applications	9,870

Certificate of disability section.

Certificates of disability received	704
Certificates of survey received	294
Certificates of death received	107
Removal of charge of desertion received	1,122
Certificates of disability issued	6,171
Certificates of death issued	119
Removal of charge of desertion issued	405

Very respectfully,

Hon. GREEN B. RAUM,
Commissioner of Pensions.

WM. H. BARKER,
Chief of Record Division.

REPORT OF CHIEF OF CERTIFICATE DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 12, 1891.

SIR: In compliance with your instructions I have the honor to submit report of the work of the certificate division for the fiscal year ending June 30, 1891.

BUSINESS OF THE DIVISION.

To this division is assigned the issuing of pension certificates and the supplementary papers; making full record of all issues with their rates, dates of commencement, disability, etc., and the mailing of the completed papers to the proper agencies for payment.

In addition to the above this division adjudicates claims for lost pension certificates, issues "permits" for payment when certificates are mislaid, transfers names from one agency to another upon change of residence, returns discharge certificates to pensioners upon application, furnishes daily reports to the press of allowances, and conducts the correspondence necessary in connection with its work.

FORCE AND CLASSIFICATION.

For the systematic accomplishment of the important duties intrusted to the Certificate Division, the work is assigned to sections as follows:

Certificate section records by names, service, agency, and certificate number admitted cases received daily from the board of review and prepares the pension certificates and orders to inscribe in accordance with the approved briefs arranged by classes. The working force of this section consists of 1 section chief, 11 reviewers, 4 recorders, 2 distributors, 2 rulers, 40 writers; total, 60.

The work of this section for the year comprised the preparation of 250,565 pension certificates and the same number of orders to inscribe.

The certificates, after a careful review, are forwarded to the Commissioner's room for signature, accompanied by a slip report showing the day's issue in detail. The other papers are sent to the *jacket section*, which prepares "admitted" jackets (or wrappers) and admission slips for the proper adjudicating division. The employés of this section are 1 section chief, 5 reviewers, 19 writers; total, 25.

The papers then go to the notice section for the preparation of notices of issue for the claimant, Third Auditor (Fourth Auditor and Second Comptroller in Navy cases), attorney, and for fee orders and addressed envelopes. The force on this work consists of 1 section chief, 10 reviewers, 39 writers; total 50.

All the papers in each case are then forwarded to the mailing section, where they are distributed to their proper certificates, sorted by pension agencies, again reviewed, and then mailed, a record being kept of the number sent each pension agent daily. The date of mailing is indorsed on each case by this section. The force employed is 1 section chief, 3 reviewers, 16 sorters, etc.; total 20.

The press section prepares slips from the briefs showing the names and State residence of pensioners as claims are allowed, from which daily typewritten reports are sent to newspapers desiring them. There are employed in this section 1 section chief, 2 writers; total 3.

The typewriting section prepares the press reports, letters, etc., and notices to members of Congress of allowances of claims in which they have made inquiries. One chief typewriter and 1 assistant are employed in this work.

The statistics section completes statistical cards received with each claim for issue, by inserting the rates of pension allowed and dates of commencement. It also keeps a record of special-act cases and issues under act of June 27, 1890. The force consists of 1 section chief, 6 writers; total 7.

MISCELLANEOUS WORK.

Besides the force employed in the several sections, there are on miscellaneous work the following:

Completing records	5
Issuing transfers, permits, etc.....	6
General correspondence.....	9
Searching records, etc.....	3
Messengers	4
Total.....	27
Total force employed	200

In conclusion, I beg leave to express my high appreciation of the faithful, conscientious services of the employés of this division. The amount of work performed has far exceeded that of any previous year in the history of the Bureau, and the untiring devotion they have shown in accomplishing it is worthy of the warmest commendation.

Very respectfully,

L. M. KELLEY,
Chief of Division.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF CHIEF OF STATIONERY DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS,
Washington, D. C., September 14, 1891.

SIR: In compliance with your instructions, I have the honor to submit the following brief statement relating to the work of the stationery division during the fiscal year ending June 30, 1891:

The duties of this division are to take charge of all the stationery, and the printing, binding, and engraving of all blanks, record books, pension certificates, pension checks, etc., used by the Bureau, the pension agencies, the special examiners in the field, and the examining surgeons throughout the country.

Requisitions, initialed by the chief clerk and signed by the Commissioner, are made upon the Secretary of the Interior for all the stationery, printing, and engraving for the Bureau. A separate account of all stationery and miscellaneous supplies drawn by chiefs of divisions is kept with each division, and with each individual employé. A comparison of the work performed in the Bureau of Pensions and the cost of its supplies with any other branch of the Government service will attest the economy of the system used in this Bureau.

The cost of the stationery used by the Bureau the past year was \$23,629.85. This is an increase over last year, the expenditure for 1890 being \$16,606.11, and it is due to the large increase of the force and the work in the Bureau. The miscellaneous supplies drawn by requisition upon the custodian cost for the year \$33,323.07, the largest item being for pension certificates.

The cost of printing and binding for the year amounted to \$79,361.46. This is largely in excess of last year's expenditure, which was \$46,893.93, but it is indicative of the increased work of the Bureau and of the substitution of printed circulars for letter writing, thus lessening the labors of the examiners and facilitating the work of the Bureau.

To show the magnitude of the work of the Bureau and, incidentally, the duties performed in this division, I may state that during the past year there were ordered printed for the use of this Bureau—

Books of record	5,400
Blanks	27,402,337
Reams of paper	949
Envelopes	4,357,690
Pamphlets	48,500
Pension certificates	819,100
Pension checks	6,455,000

Of these a great number were packed and shipped from the division to the various pension agencies, the examining surgeons, and the special and detailed examiners in the field.

The employés of this division now number five in addition to the chief. The work is of such a miscellaneous character, comprising innumerable little details, that it is impracticable to give an intelligent idea of the amount of work performed by each individual. The employés of this division are, without exception, punctual, faithful, and efficient, and the work of the division is done not only properly but cheerfully.

I have the honor to be, very respectfully,

McKENDREE DOWNHAM,
Chief Stationery Division.

Hon. GREEN B. RAUM,
Commissioner of Pensions.

REPORT OF CHIEF OF ARMY AND NAVY SURVIVORS' DIVISION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF PENSIONS, ARMY AND NAVY SURVIVORS' DIVISION,
Washington, D. C., September 16, 1891.

SIR: I have the honor to submit the annual report of the work of the army and navy survivors' division for the year ending June 30, 1891.

A comparison with the report of the previous year (which report shows a marked increase in the amount of work done over preceding years) will show a considerable falling off in some of the several lines and a gain in others, due to the following causes:

From June, 1889, to June, 1890, the daily average force present of this division was 40, while during the past fiscal year, owing to reductions, detachments, and other unavoidable absences, the average daily force was reduced to 25.50, thus essentially curtailing the work accomplished.

During a portion of October and November nearly the entire force of this division was engaged in writing jackets for the record division, which yet further interfered with its own particular work.

It becoming apparent that the files of the division, which had received no general verification since its establishment, badly needed it, this important but laborious work was commenced in October, and has engaged a good portion of the employés of the division since, and the result appears in the number of cards sent out and received back with correct service and post-office addresses.

This work, not yet complete, it is proposed to continue until all addresses on file shall have been verified.

New addresses are constantly being added to the files through the various sources which generally contribute each their quota to this end, but it is noticeable that comparatively few cards are now being sent in by examiners in the adjudicating divisions, which oversight or neglect it is respectfully suggested should be remedied.

The material benefit to the several divisions of this Bureau, the various Departments of the Government, and to claimants, afforded by this division, is so well attested as to require no repetition, and mention is made only that its needs may be more fully understood and appreciated.

To attain the end desirable—viz: a complete file of the names, service, and present post-office addresses of all survivors of the Army and Navy of the late war, and to be able to promptly answer the numerous calls made upon this division for information—a larger clerical force is imperatively necessary.

It is with regret that I am obliged to state that for some time past many attorneys' calls for addresses of comrades in aid of pending claims have had to be referred to the case, there to await a call from the adjudicating division, it being simply impossible for the force of this division to comply with such requests, and I urgently ask that an additional force of ten (10) or fifteen (15) clerks may be assigned, in order that this and other branches of the work may be more promptly facilitated.

Very respectfully,

S. L. TAGGART,

Chief Army and Navy Survivors' Division.

The COMMISSIONER OF PENSIONS.

Detailed report of work completed in the army and navy survivors' division from July 1, 1890, to June 30, 1891, inclusive, showing number of names with post-office addresses supplied to the adjudicating divisions, the special examination division, and to claimants or their attorneys.

Divisions, etc.	Commis- sioned officers.	Noncom- missioned officers.	Privates.	Total names.	Total cases.	Special names.
Eastern.....	4,358	5,793	17,928	28,079	3,456	1,625
Middle.....	2,965	3,507	11,415	17,887	2,402	1,313
Western.....	3,212	3,465	12,197	18,874	2,317	1,789
Southern.....	1,653	1,952	7,679	11,284	1,398	561
Old war and navy.....	1,506	1,440	6,062	9,008	1,440	1,154
Special examinations.....	837	1,022	3,800	5,659	857	469
Miscellaneous calls.....	16,009	14,272	34,858	65,139	14,340	16,266
Total.....	30,540	31,451	93,939	155,930	26,210	23,177

Total number of names with post-office addresses furnished in 26,210 cases.....	155,930
Addresses supplied to specified names.....	23,177
Circular lists of officers and comrades.....	14,340
Letters and circular letters.....	11,104
Circular cards sent out.....	291,441
New cards verified, assorted, and filed.....	395,253
Jackets written for record division, October and November.....	13,820
Calls on Adjutant-General, U. S. Army.....	2,025
Calls on Surgeon-General, U. S. Army.....	375
Calls on Navy Department.....	899
Post-office addresses of surgeons furnished during year.....	4,504

SUMMARY OF TABLES.

Table No. 1 shows that there were at the close of the year 676,160 pensioners, classified as follows: 413,597 army invalids; 108,560 widows, minor children, and dependent relatives; 5,449 navy invalids; 2,568 navy widows, minor children, and dependent relatives, all under the general law; 97,136 army invalids; 12,209 army widows, minor children, and dependent relatives; 3,976 navy invalids; 1,436 navy widows, minors, and dependent relatives, all pensioned under the act of June 27, 1890; 284 survivors of the war of 1812; 7,590 widows of those who served in that war; 16,379 survivors of the war with Mexico, and 6,976 widows of those who served in that war.

There were added to the rolls during the year the names of 156,486 new pensioners,

nearly three times the largest number of new pensioners placed upon the roll during any previous year. The names of 2,255 whose pensions had been previously dropped were restored, making an aggregate of 158,741 pensioners added during the year.

During the same period the names of 20,525 pensioners were dropped for various causes, leaving a net increase to the rolls of 138,216 names.

The average annual value of each pension at the close of the year was \$131.99, while the average annual value of the pensions allowed under the act of June 27, 1890, and on the rolls at the close of the year was \$121.51. The aggregate annual value of all pensions on said date was \$89,247,200.20.

The amount paid for pensions during the year was \$116,979,172.72, an increase in amount over the previous year of \$11,450,992.34.

Table No. 2 shows that during the year 20,525 pensioners were dropped from the rolls. This table is prepared in such a manner as to show in the widows' class the number of widows with and those without minor children, the number of minor children who were pensioned in their own right, and the number of dependent mothers and fathers. A like subdivision has been made of the pensioners dropped from the rolls who were placed thereon under the act of June 27, 1890; and this table also shows the whole number of pensioners on the rolls with the widows' class under the general law and under the act of June 27, 1890, subdivided in each instance so as to show the number of widows with children, of widows without children, of children pensioned in their own right, and of dependent mothers and dependent fathers.

Table No. 3 exhibits the amount of appropriations for the payment of pensions during the fiscal year 1891, the disbursements for said purpose during that period, and the unexpended balances thereof at the close of the year.

Table No. 4 exhibits the amount paid out on account of pensions by each agent, under each item of appropriation, as shown by their accounts current. This table also shows a disbursement of \$18,310.46 for the payment of arrears of pensions in cases in which the original pension was granted prior to January 25, 1879, and the date of commencement of the pension was subsequent to discharge or death.

Table No. 5 shows the amounts expended for army pensions and for navy pensions separately, so arranged as to show what amount was paid to invalids and what amount to widows and others under each head. This table, it is to be understood, refers only to the disbursements for pensions under the general law.

Table No. 6 shows the same information and in the same detail so far as cases which have been allowed under the act of June 27, 1890, are concerned.

Table No. 7 shows the amount and number of first payments made at the pension agencies during the year in each class of cases. It will be seen that 222,521 first payments were made during the year, amounting to \$38,652,274.31. It will also be seen that the average value of all the original payments made during the year was \$239.33, but that the average value of original payments made in cases allowed under the act of June 27, 1890, during said year was \$71.28. The amount paid as fees to attorneys during the year was \$2,769,200.70.

Table No. 8 shows the number of cases of each class on hand at the pension agencies and unpaid on the 30th day of June, 1891, with the amount of the first payments due therein. It will be seen that the average value of these payments was \$135.26, while the average amount due in those cases allowed under the act of June 27, 1890, which had not been made at the close of the year, was \$100.12.

Table No. 9 shows the amount paid for pensions each year since 1871 to the survivors and widows of the war of 1812 and since 1887 to the survivors and widows of the war with Mexico.

Table No. 10 shows the number of pensioners on the rolls of each agency by classes and compares the aggregate number with that of the previous year, showing in each class the net increase or the net decrease. It will be seen that the net increase to the rolls during the year was 138,216, as before stated.

Table No. 11 shows the number of pensioners in each State and Territory of the United States and the number in each foreign country on the rolls June 30, 1891.

Table No. 12 shows the different monthly rates of pensions paid to army and navy invalids and to army and navy widows, minor children and dependent relatives, both under the general law and under the act of June 27, 1890, the latter being stated separately, together with the number of pensioners of these classes and of each of them.

Table No. 13 gives the location and geographical limits of each pension agency, the name of each agent, and the balance of funds remaining to his official credit at the close of the year. These balances, except arrears, are immediately covered into the Treasury at the close of the fiscal year.

Table No. 14 shows the number of original claims filed each year since 1861, the number allowed, and the number of pensioners on the rolls at the close of each year. Since the year 1861 1,716,989 invalid claims have been filed and 1,012,244 claims on account of death; the latter having been filed by widows, minor children, and dependent relatives. Of the 363,799 applications for original pension filed during the fiscal year 1891, there were 243,680 filed by invalids and 78,270 filed by widows and others under the act of June 27, 1890. In the total number of claims allowed in 1891 are included 88,611 invalids and 13,776 widows and others under the act of June 27, 1890. Since 1871, 79,940 claims for pension on account of service during the war of 1812, which pension was provided for by the acts of 1871 and 1878, have been filed. Of this number 34,928 have been filed by the surviving soldiers and sailors, and 45,012 by the widows of those who served in that war. During the past year only 11 claims have been filed by survivors and 140 by widows.

It thus appears that in the aggregate 1,716,989 original applications for pension have been filed in this Bureau since 1861, and that in the same period 1,012,244 have been allowed. The number of pensioners on the rolls at the close of each year is stated and it will be seen that the amount disbursed for pensions since 1861 has been \$1,277,261,263.07.

Table No. 15 shows the number of army invalid claims under the general law allowed each year since 1861, classified and arranged so that in each year's allowance it is shown in what years the claims were filed. The whole number of invalid claims filed each year since 1861 is given and it is shown what percentage of the number of claims filed each year has been allowed.

Table No. 16 shows the number of each class of claims in the files of the Bureau at the commencement of the years, the number filed during the year, and the number admitted and rejected during the same period. It also shows the number of each class pending and on the rejected files at the close of the year.

Table No. 17 is a comparative statement of the pension claims of all classes, settled by allowance or rejection each year since 1881.

Table No. 18 shows the issue of certificates from this Bureau during the fiscal year, a grand total of 250,565.

Table No. 19 shows in brief the operations of the special examination division during the year. It sets forth the number of claims acted upon by said division and the expenditure on account thereof except salaries.

Table No. 20 shows the number of names and addresses furnished to different divisions of this Bureau by the Army and Navy Survivors' Division thereof and also the number furnished by said division to claimants in the consideration of pending claims.

Table No. 21 shows the work done by the Mail Division of this Bureau during the year. It will appear that \$20,154.33 were received in money and that 10,608 postage stamps were received. It will also appear that 5,375,120 pieces of mail matter were received, examined, and distributed to the proper divisions of the Bureau, and that 3,926,491 letters and cards were sent out by the Bureau during the year.

Table No. 22 gives the names, ages, and post-office addresses of persons who are still upon the pension rolls as either the widows or children of soldiers of the Revolutionary war. There are 21 widows and 2 daughters.

TABLE NO. 1.—Number of pensions allowed and increased during the year, with the annual value of all pensions on the roll.

Year ending June 30, 1891.	Pensions allowed and increased during the year.						Dropped from the roll.	Reductions in rate.		Number of pen- sioners June 30, 1891.	Annual value of pensions as shown by roll June 30, 1891.
	Original.		Increase, reissue, and additional.		Restoration and re- newal.			No.	Annual value.		
	No.	Annual value.	No.	Annual value.	No.	Annual value.					
Army—general law....	40,577	\$3,917,132.00	71,579	\$4,599,185.28	1,603	\$153,509.00	8,190	\$2,880,470.77	266	\$12,696.00	\$56,926,686.20
{ Invalids.	11,701	1,727,418.00	474	12,300.00	173	19,948.00	7,770	1,119,146.00	3,182	93,312.00	13,671,898.00
{ Widows, etc.	804	88,176.00	661	45,653.00	27	2,919.00	301	60,985.00	2	216.00	831,410.00
Navy—general law	213	44,560.00	33	5,136.00	5	936.00	110	19,148.00	56	1,680.00	500,420.00
Army—act of June 27, 1890.	85,047	9,987,808.00	13,152	1,428,187.00	407	49,826.00	1,470	105,840.00	.....	.....	12,003,020.00
{ Invalids.	12,337	1,340,100.00	5	220.00	17	1,056.00	145	13,920.00	206	4,728.00	1,307,576.00
{ Widows, etc.	3,564	453,152.00	405	40,980.00	14	1,608.00	7	768.00	.....	.....	481,656.00
Navy—act of June 27, 1890.	1,439	157,464.00	.....	.....	5	480.00	8	864.00	31	744.00	152,472.00
{ Invalids.	4	384.00	3	744.00	.....	.....	133	12,768.00	.....	.....	31,130.00
{ Widows, etc.	79	11,376.00	13	1,380.00	2	288.00	1,101	158,544.00	.....	.....	1,092,960.00
War of 1812.....	336	32,256.00	58	6,276.00	.....	.....	1,115	107,040.00	.....	.....	1,578,276.00
War with Mexico.....	385	36,960.00	7	336.00	2	192.00	175	16,800.00	.....	.....	669,696.00
{ Survivors ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{ Widows .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	156,486	17,796,786.00	86,390	6,140,397.28	2,255	230,762.00	20,525	4,496,293.77	3,743	113,376.00	89,247,200.20

Average annual value of each pension on the rolls June 30, 1891..... \$131.99

Average annual value of each pension on the rolls June 30, 1891, under the act of June 27, 1890..... 121.51

TABLE NO. 2.—Number of pensioners of the various classes dropped from the rolls during the year, with the cause, and the number of each class on the rolls June 30, 1891.

Classes.	By death.	By remarriage.	Minors by legal limitation.	By failure to claim.	For other causes.	Total number of pensioners dropped from rolls.	Total number of pensioners of all classes on the rolls June 30, 1891.
<i>General law.</i>							
Army and navy.....	7, 113 3, 900	1, 421	1, 433	761 792	617 334	8, 491 7, 880	419, 046 111, 128
Total.....	11, 013	1, 421	1, 433	1, 553	951	16, 371	530, 174
Classification of widows' roll under general law:							
Widows without children.....	1, 264	462		290	127	2, 143	56, 119
Widows with children.....	330	937		21	139	1, 427	17, 899
Minor children.....	17		1, 433		13	1, 463	2, 873
Mothers.....	1, 684	22		344	48	2, 098	27, 799
Fathers.....	604			132	7	743	6, 380
Brothers and sisters, dependent sons and daughters.....	1			5		6	58
<i>Act of June 27, 1890.</i>							
Army and navy.....	430 103	13	3		1, 047 34	1, 477 153	101, 112 13, 645
Total.....	533	13	3		1, 081	1, 630	114, 757
Classification of widows' roll, act of June 27, 1890:							
Widows without children.....	68	7			5	80	8, 260
Widows with children.....	3	5			7	15	3, 866
Minor children.....	1		3			4	106
Mothers.....	24	1			22	47	897
Fathers.....	7					7	515
Helpless children.....							1
<i>War of 1812.</i>							
Survivors.....	112			12	9	133	284
Widows.....	789	2		284	26	1, 101	7, 590
Total.....	901	2		296	35	1, 234	7, 874
<i>War with Mexico.</i>							
Survivors.....	690			93	332	1, 115	16, 379
Widows.....	92	6		30	47	175	6, 976
Total.....	782	6		123	379	1, 290	23, 355
Grand total.....	13, 229	1, 442	1, 436	1, 972	2, 446	20, 525	676, 160

Total children on the rolls: General law, 30,891; act of June 27, 1890, 7,654.

This table does not include the cases which during the year were dropped from the roll under the general law and pensioned under the act of June 27, 1890, as "additional" cases.

TABLE NO. 3.—*Showing the appropriations for pensions, etc., and the disbursements on account thereof, for the fiscal year 1891, and unexpended balances at the close of the year.*

	Appropriations.					Disbursements.			Balances.			
	Balance arrears fund in the hands of U. S. pension agents June 30, 1890.	Balance arrears fund remaining in the U. S. Treasury June 30, 1890.	Available balance arrears fund July 1, 1890.	Amount appropriated, act June 30, 1890.	Amount deficiency appropriation and adjusting quarterly pension payments, act Mar. 3, 1891.	Total amount appropriated for fiscal year 1891.	Amount disbursed by U. S. pension agents.	Amount disbursed by Treasury settlement.	Total amount disbursed.	Balance remaining in the hands of the U. S. pension agents June 30, 1891.	Balance remaining in the U. S. Treasury June 30, 1891.	Available balance June 30, 1891.
Army pensions.....				\$94,590,761	\$28,678,332.89	\$123,269,093.89	\$114,637,786.25	\$98,219.18	\$114,736,005.43	\$5,333,177.13	\$3,205,461.45	\$8,538,638.58
Navy pensions.....				2,500,000	.....	2,500,000.00	2,221,917.16	2,939.67	2,224,856.83	178,841.38	96,578.73	275,420.11
Army arrears of pensions.....	\$129,214.56	\$291,381.75	\$420,596.31	.....	.....	.....	12,229.54	5,234.25	17,463.79	169,610.50	231,288.58	400,898.88
Navy arrears of pensions.....		72,098.06	72,098.06	.....	.....	.....	846.67	.....	846.67	.....	71,251.39	71,251.39
Army fees of examining surgeons.....				963,000	500,000.00	1,463,000.00	1,148,947.73	.....	1,148,947.73	1,048.04	546.11	1,594.15
Navy fees of examining surgeons.....				37,000	.....	37,000.00	33,739.99	.....	33,739.99	3,159.16	100.85	3,260.01
Salary.....				72,000	.....	72,000.00	71,999.99	.....	71,999.99	144.45	177.77	322.22
Clerk hire.....				250,000	35,000.00	285,000.00	270,720.67	.....	270,720.67	14,279.09	24	14,279.33
Rent.....				18,200	.....	18,200.00	17,432.33	.....	17,432.33	.....	767.67	767.67
Fuel.....				750	.....	750.00	152.75	.....	152.75	42.30	554.95	597.25
Lights.....				750	.....	750.00	285.77	.....	285.77	59.33	404.90	464.23
Contingent expenses.....				25,000	.....	25,000.00	16,978.43	6,739.13	23,717.56	1,281.86	.58	1,282.44
Adjusting quarterly pension payments.....					15,000.00	15,000.00	2,790.20	.....	2,790.20	12,209.80	.....	12,209.80
Total.....	129,214.56	363,479.81	492,694.37	98,457,461	29,228,332.89	127,685,793.89	118,435,827.48	113,132.23	118,548,959.71	5,713,852.84	3,607,133.22	9,320,986.06

In addition to the above, there were disbursed during the fiscal year ending June 30, 1891, the following sums, chargeable to the appropriations for the fiscal year ending June 30, 1890:

Fees of examining surgeons, Army pensions.....	\$442,346.03	Total amount paid for pensions.....	\$116,979,172.72
Fees of examining surgeons, Navy pensions.....	5,382.73	Total amount paid for expenses.....	1,569,786.99
Total.....	447,728.76	Total.....	118,548,959.71
Cost of disbursement of pension funds, $1\frac{1}{2}$ per cent.			

TABLE NO. 4.—Amount disbursed at United States pension agencies during the fiscal year ending June 30, 1891, as shown by accounts current.

Agencies.	Army pensions.								
	Pensions.	Fees of examining surgeons.	Salary.	Clerk hire.	Rent.	Fuel.	Lights.	Contingent expenses.	Total.
Angusta.....	\$2,810,832.52	.....	\$4,000.00	\$5,105.00	\$224.17	\$45.45	\$9.60	\$500.42	\$2,820,716.76
Boston.....	5,846,073.58	.....	4,000.00	14,734.94	.....	.....	.....	321.38	5,865,129.90
Buffalo.....	6,419,978.52	.....	4,000.00	14,015.98	.....	.....	.....	403.80	6,438,398.30
Chicago.....	8,967,990.34	.....	4,000.00	24,459.54	.....	.....	.....	892.01	8,997,341.89
Columbus.....	13,029,711.28	.....	4,000.00	27,896.10	.....	.....	.....	1,590.94	13,063,198.32
Concord.....	2,927,053.30	.....	3,999.99	6,533.29	.....	.....	.....	206.39	2,937,792.97
Des Moines.....	6,868,819.55	.....	4,000.00	14,154.34	.....	.....	.....	777.96	6,887,751.85
Detroit.....	6,125,874.81	.....	4,000.00	12,035.50	1,985.00	.....	7.60	981.04	6,144,883.95
Indianapolis.....	10,596,798.10	.....	4,000.00	26,257.37	2,062.50	.....	220.80	1,861.05	10,631,199.82
Knoxville.....	5,464,464.36	.....	4,000.00	12,760.21	.....	.....	.....	421.08	5,481,646.15
Louisville.....	4,014,595.84	.....	4,000.00	6,440.51	.....	.....	.....	279.17	4,025,315.52
Milwaukee.....	5,946,833.14	.....	4,000.00	13,871.75	2,218.00	.....	.....	827.31	5,967,750.20
New York.....	5,249,547.37	.....	4,000.00	17,340.06	6,500.00	.....	.....	2,025.00	5,279,412.43
Philadelphia.....	5,688,048.18	.....	4,000.00	17,905.84	.....	.....	.....	1,010.91	5,710,964.93
Pittsburg.....	5,085,769.56	.....	4,000.00	14,353.23	2,000.00	.....	.....	1,596.56	5,107,719.35
San Francisco.....	1,517,075.60	.....	4,000.00	4,170.61	1,222.66	.....	.....	866.18	1,527,335.05
Topeka.....	10,709,227.18	.....	4,000.00	18,405.46	.....	.....	.....	898.13	10,732,530.77
Washington.....	7,369,092.52	\$1,148,947.73	4,000.00	20,280.94	1,220.00	107.70	47.77	1,519.10	8,545,215.76
Total.....	114,637,786.25	1,148,947.73	71,999.99	270,720.67	17,432.33	152.75	285.77	16,978.43	116,164,303.92

Agencies.	Navy pensions.			Arrears of pensions.			Adjusting quarterly pension payments.	Grand total.
	Pensions.	Fees of examining surgeons.	Total.	Army.	Navy.	Total.		
Angusta.....				\$692.66		\$692.66		\$2,821,409.42
Boston.....	\$580,543.70		\$580,543.70	562.07	\$846.67	1,408.74		6,447,082.34
Buffalo.....				1,990.83		1,990.83		6,440,389.13
Chicago.....	459,029.67		459,029.67	212.13		212.13	\$1,399.20	9,457,982.89
Columbus.....				1,688.80		1,688.80		13,064,887.12
Concord.....				135.00		135.00		2,937,927.97
Des Moines.....								6,887,751.85
Detroit.....				624.06		624.06		6,145,508.01
Indianapolis.....				939.00		939.00		10,632,138.82
Knoxville.....				550.67		550.67		5,482,196.82
Louisville.....				2,272.61		2,272.61	123.33	4,027,711.46
Milwaukee.....	368,156.13		368,156.13	137.44		137.44	432.00	5,968,319.64
New York.....	324,799.00		324,799.00				265.00	5,647,833.56
Philadelphia.....				722.27		722.27		6,036,486.20
Pittsburg.....	51,600.34		51,600.34	1,498.20		1,498.20	570.67	5,109,788.22
San Francisco.....								1,578,935.39
Topeka.....	437,788.32		471,528.31	179.13		179.13		10,732,709.90
Washington.....				24.67		24.67		9,016,768.74
Total.....	2,221,917.16	33,739.99	2,255,657.15	12,229.54	846.67	13,076.21	2,790.20	118,435,827.48

In addition to the above, there were disbursed during the fiscal year ending June 30, 1891, the following sums chargeable to the appropriations for the fiscal year ending June 30, 1890:

Fees of examining surgeons, Army pensions	\$442,346.03
Fees of examining surgeons, Navy pensions	5,382.73
Total.....	447,728.76

TABLE NO. 5.—Statement of amount paid for pensions under the general law.

Agency.	Army pensions.			Navy pensions.			Grand total.
	Invalids.	Widows and others.	Total.	Invalids.	Widows and others.	Total.	
Augusta.....	\$1,913,101.78	\$744,341.66	\$2,657,443.44	.....	.....	.....	\$2,657,443.44
Boston.....	3,305,465.89	2,120,738.14	5,426,204.03	.....	\$180,793.79	\$486,151.68	5,912,355.71
Buffalo.....	4,123,970.39	1,807,134.25	5,931,104.64	.....	.....	.....	5,931,104.64
Chicago.....	6,081,381.20	2,213,127.38	8,294,508.58	254,278.71	105,981.47	360,260.18	8,654,768.76
Columbus.....	8,522,773.32	3,264,113.49	11,786,886.81	.....	.....	.....	11,786,886.81
Concord.....	2,031,846.07	750,309.79	2,782,155.86	.....	.....	.....	2,782,155.86
Des Moines.....	5,140,568.60	1,107,362.69	6,247,931.29	.....	.....	.....	6,247,931.29
Detroit.....	4,534,904.07	1,131,592.18	5,666,496.25	.....	.....	.....	5,666,496.25
Indianapolis.....	7,582,258.71	2,439,111.31	10,021,370.02	.....	.....	.....	10,021,370.02
Knoxville.....	2,632,837.60	1,471,837.24	4,104,674.84	.....	.....	.....	4,104,674.84
Louisville.....	2,356,837.50	1,153,359.23	3,510,196.73	.....	.....	.....	3,510,196.73
Milwaukee.....	4,479,101.21	1,123,428.36	5,602,529.57	.....	.....	.....	5,602,529.57
New York City.....	2,987,177.06	1,779,898.93	4,767,075.99	159,217.14	120,995.46	280,212.60	5,047,288.59
Philadelphia.....	3,336,647.99	1,654,178.47	4,990,826.46	162,891.20	87,131.36	250,022.56	5,240,849.02
Pittsburg.....	3,370,558.70	1,128,931.71	4,499,490.41	.....	.....	.....	4,499,490.41
San Francisco.....	929,260.66	231,917.97	1,161,178.63	34,049.07	8,333.46	42,382.53	1,203,561.16
Topeka.....	7,068,950.03	2,174,332.03	9,243,282.06	.....	.....	.....	9,243,282.06
Washington.....	4,751,550.90	1,367,905.31	6,119,456.21	190,731.54	149,275.41	340,006.95	6,459,463.16
Total.....	75,149,191.68	27,663,620.14	102,812,811.82	1,106,525.55	652,510.95	1,759,036.50	104,571,848.32

TABLE NO. 6.—Statement of amount paid for pensions under the act of June 27, 1890.

Agency.	Army pensions.			Navy pensions.			Grand total.
	Invalids.	Widows and others.	Total.	Invalids.	Widows and others.	Total.	
Augusta	\$60,771.10	\$13,980.66	\$74,751.76	.....	.....	.....	\$74,751.76
Boston	246,624.19	72,941.08	319,565.27	.....	\$30,405.96	.....	413,957.29
Buffalo	334,226.32	50,424.36	384,650.68	.....	.....	.....	384,650.68
Chicago	408,370.33	63,736.77	472,107.10	79,275.12	19,494.37	98,769.49	570,876.59
Columbus	944,362.38	120,354.13	1,064,716.51	.....	.....	.....	1,064,716.51
Concord	88,382.50	13,616.81	101,999.31	.....	.....	.....	101,999.31
Des Moines	470,207.78	44,136.14	514,343.92	.....	.....	.....	514,343.92
Detroit	363,316.20	33,308.90	396,625.10	.....	.....	.....	396,625.10
Indianapolis	371,868.67	55,223.79	427,092.46	.....	.....	.....	427,092.46
Knoxville	414,737.65	41,851.90	456,589.55	.....	.....	.....	456,589.55
Louisville	309,444.06	31,843.41	341,287.47	.....	.....	.....	341,287.47
Milwaukee	254,026.85	26,712.99	280,739.84	.....	.....	.....	280,739.84
New York City	275,680.30	73,579.66	349,259.96	58,984.84	28,958.69	87,943.53	437,203.49
Philadelphia	490,772.26	99,558.13	590,330.39	49,928.39	24,848.05	74,776.44	665,106.83
Pittsburg	474,650.76	51,030.79	525,681.55	.....	.....	.....	525,681.55
San Francisco	74,030.80	7,304.10	81,334.90	7,542.59	1,675.22	9,217.81	90,552.71
Topeka	1,045,241.63	99,896.34	1,145,137.97	.....	.....	.....	1,145,137.97
Washington	845,213.04	73,329.33	918,542.37	80,463.83	17,317.54	97,781.37	1,016,323.74
Total	7,471,926.82	972,829.29	8,444,756.11	340,180.83	122,699.83	462,880.66	8,907,636.77

TABLE 7.—Number and amount of first payments on each class of certificates made during fiscal year 1891, by pension agents to each class of pensioners.

Class of cases.	Original.		Increase and additional.		Reissue.		Restoration and renewal.		Number and total amount of first payments during year.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Army—General law.....	42,094	\$14,253,606.74	67,383	\$1,945,396.26	10,497	\$3,715,615.82	1,596	\$789,654.85	121,570	\$20,704,273.67
{ Invalids.....	12,721	11,179,041.10	52	8,368.57	147	80,891.77	104	75,989.13	13,024	11,344,290.57
{ Widows, etc.....	698	260,564.62	537	21,331.27	124	37,424.63	33	14,972.71	1,392	334,293.23
Navy—General law.....	242	187,072.45	16	782.25	7	146.74	6	2,356.16	271	190,357.60
{ Invalids.....	61,119	4,399,830.75	10,173	529,014.44	2	72.87	257	19,324.33	71,551	4,948,242.39
{ Widows, etc.....	9,050	620,048.06	361	14,978.43	.....	.....	4	430.30	9,054	620,478.36
Army—Act June 27, 1890.....	3,110	215,993.20	.....	.....	.....	.....	13	860.79	3,484	231,832.42
Navy—Act June 27, 1890.....	1,286	79,388.39	.....	.....	.....	.....	.....	.....	1,286	79,388.39
War of 1812.....	3	1,594.67	1	38.40	.....	.....	.....	.....	4	1,633.07
{ Survivors.....	82	62,269.91	4	249.66	.....	.....	3	781.47	89	63,301.04
{ Widows.....	337	64,811.98	27	663.98	9	952.00	1	49.87	374	66,477.83
War with Mexico.....	418	67,316.88	1	.33	1	238.67	2	149.86	422	67,705.74
{ Survivors.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{ Widows.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	131,160	31,391,538.75	78,555	2,520,823.59	10,787	3,835,342.50	2,019	904,569.47	222,521	38,652,274.31

Amount paid as fees to attorneys during the year, \$2,769,200.70; average value of original payments made during 1891, \$239.33; average value of original payments in act June 27, 1890, cases made during 1891, \$71.28.

TABLE 8.—Number of cases of each class on hand at the pension agencies and unpaid June 30, 1891, with the amount of the first payment therein.

Class of cases.	Original.		Increase and additional.		Reissue.		Restoration and renewal.		Total number of certificates unpaid and the amount due thereon June 30, 1891.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Army—General law.....	2,492	\$776,980.91	3,341	\$137,679.86	587	\$195,064.70	106	\$57,172.10	6,526	\$1,166,897.57
{ Invalids.....	686	601,589.00	1	731.07	6	3,458.80	12	7,881.21	705	613,660.08
{ Widows, etc.....	67	7,207.76	84	2,377.16	11	4,350.34	2	624.26	164	14,559.52
Navy—General law.....	23	16,021.96	.....	.....	.....	.....	.....	.....	23	16,021.96
{ Invalids.....	23,928	2,439,280.32	2,979	231,766.20	.....	.....	150	13,840.50	27,057	2,684,887.02
{ Widows, etc.....	3,287	301,746.60	5	.....	.....	.....	13	1,153.23	3,305	302,899.83
Army—Act June 27, 1890.....	454	32,220.38	44	2,365.00	.....	.....	1	56.20	499	34,641.58
Navy—Act June 27, 1890.....	153	12,317.79	.....	.....	.....	.....	.....	.....	153	12,317.79
War of 1812.....	12	7,134.28	.....	.....	.....	.....	.....	.....	.....	.....
{ Survivors.....	78	18,613.74	.....	.....	1	39.47	3	504.27	12	7,134.28
{ Widows.....	48	11,065.53	.....	.....	.....	.....	.....	.....	82	19,157.48
War with Mexico.....	.....	.....	.....	.....	.....	.....	.....	.....	48	11,065.53
{ Survivors.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{ Widows.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	31,228	4,224,178.27	6,454	374,919.29	605	202,913.31	287	81,231.77	38,574	4,883,242.64

Average value of original payments due but not made June 30, 1891, \$135.26; average amount of first payment in original (act June 27, 1890) cases due but not made June 30, 1891, \$100.12.

TABLE No. 9.—*Statement of amounts paid for pensions to the survivors of the war of 1812, and to the widows of those who served in that war, since 1871; and to the survivors of the war with Mexico, and to the widows of those who served in that war, since 1887.*

Fiscal year of—	War of 1812.			War with Mexico.		
	Survivors.	Widows.	Total dis- bursements.	Survivors.	Widows.	Total dis- bursements.
1871 (from Feb. 14 1871).	\$2,555.05	\$511.00	\$3,066.05	-----	-----	-----
1872.....	1,977,415.84	335,993.63	2,313,409.47	-----	-----	-----
1873.....	2,078,606.98	689,303.59	2,767,910.57	-----	-----	-----
1874.....	1,588,832.95	616,026.40	2,204,849.35	-----	-----	-----
1875.....	1,355,599.86	533,000.21	1,888,600.07	-----	-----	-----
1876.....	1,089,037.18	445,772.95	1,534,810.13	-----	-----	-----
1877.....	934,657.82	361,542.91	1,296,206.73	-----	-----	-----
1878 (from Mar. 9, 1878).	768,918.47	294,572.05	1,063,490.52	-----	-----	-----
1879.....	1,014,525.66	2,192,699.54	3,207,225.20	-----	-----	-----
1880.....	790,710.39	2,658,058.14	3,448,768.53	-----	-----	-----
1881.....	621,612.80	2,381,800.95	3,003,413.75	-----	-----	-----
1882.....	478,274.85	2,024,207.63	2,502,482.48	-----	-----	-----
1883.....	357,334.81	1,882,542.41	2,239,877.22	-----	-----	-----
1884.....	278,888.85	1,686,302.09	1,965,190.94	-----	-----	-----
1885.....	207,782.80	1,518,202.39	1,725,985.19	-----	-----	-----
1886.....	144,389.59	1,458,896.44	1,603,286.03	-----	-----	-----
1887.....	105,837.01	1,765,582.36	1,871,419.37	\$53,148.68	\$2,458.08	\$55,606.76
1888.....	73,659.48	1,596,604.96	1,670,264.44	1,861,756.07	583,056.28	2,444,812.35
1889.....	52,800.27	1,397,487.09	1,450,287.36	1,796,899.30	693,572.45	2,490,471.75
1890.....	38,847.09	1,263,239.37	1,302,086.46	1,728,027.54	695,054.90	2,423,082.44
1891.....	22,504.64	1,040,284.41	1,062,789.05	1,622,114.75	695,314.52	2,317,429.27
Total.....	13,982,792.39	26,142,626.52	40,125,418.91	7,061,946.34	2,669,456.23	9,731,402.57

TABLE No. 10.—*A classified statement of the number of pensioners on the rolls of each agency compared with the number on the rolls June 30, 1890.*

Location of agency.	General law.				Act of June 27, 1890.			
	Army.		Navy.		Army.		Navy.	
	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Invalids.	Widows, etc.
Columbus	46,303	11,962	.....	.....	11,707	1,406	.....	.....
Topeka	37,178	6,929	.....	.....	13,856	1,349	.....	.....
Indianapolis	42,491	8,821	.....	.....	4,481	652	.....	.....
Chicago	34,363	8,475	1,145	343	6,055	851	937	241
Washington	24,084	4,972	989	548	10,397	913	924	206
Des Moines	28,530	4,563	.....	.....	5,939	516	.....	.....
Boston	20,214	9,066	1,530	774	3,084	939	752	361
Philadelphia	19,601	7,311	816	414	6,249	1,158	582	270
Buffalo	23,405	7,498	.....	.....	3,991	587	.....	.....
Milwaukee	25,152	4,895	.....	.....	3,906	403	.....	.....
Detroit	23,773	4,813	.....	.....	4,278	436	.....	.....
Knoxville	12,442	4,853	.....	.....	6,286	639	.....	.....
New York	17,267	7,252	790	455	3,567	947	684	335
Pittsburg	19,584	5,407	.....	.....	5,938	534	.....	.....
Louisville	11,318	3,850	.....	.....	4,327	438	.....	.....
Concord	11,904	3,693	.....	.....	1,049	160	.....	.....
Augusta	10,773	3,500	.....	.....	774	174	.....	.....
San Francisco	5,215	700	179	34	1,252	107	97	23
Total number of pensioners	413,597	108,560	5,449	2,568	97,136	12,209	3,976	1,436
Increase during year	20,788	4,104	175	108	97,136	12,209	3,976	1,436
Decrease during year .....	.....	.....	.....	.....	.....	.....	.....	.....

Location of agency.	War of 1812.		War with Mexico.		Number of pensioners on the rolls June 30, 1891.	Number of pensioners on the rolls June 30, 1890.
	Survivors.	Widows.	Survivors.	Widows.		
Columbus	21	608	583	272	72,862	56,233
Topeka	14	363	2,075	786	62,550	44,082
Indianapolis	7	289	713	317	57,771	50,196
Chicago	12	307	1,078	529	54,336	44,642
Washington	48	900	1,525	495	46,001	32,916
Des Moines	9	178	609	197	40,541	32,261
Boston	14	575	210	119	37,638	31,021
Philadelphia	1	273	406	248	37,329	29,306
Buffalo	41	586	150	59	36,317	30,609
Milwaukee	6	114	352	113	34,941	29,053
Detroit	11	226	237	93	33,867	27,143
Knoxville	32	1,419	4,633	2,512	32,816	25,230
New York	20	455	466	253	32,491	25,927
Pittsburgh	11	224	218	104	32,020	24,892
Louisville	11	334	775	387	21,440	16,023
Concord	8	239	62	24	17,139	15,427
Augusta	15	442	59	27	15,764	14,565
San Francisco	3	58	2,228	441	10,337	8,418
Total number of pensioners	284	7,590	16,379	6,976	676,160	537,944
Increase during year .....	.....	.....	.....	.....	.....	.....
Decrease during year	129	1,020	779	212	138,216	.....

TABLE No. 11.—*Number of pensioners in each State and Territory of the United States and in each foreign country on the rolls June 30, 1891.*

United States.	Number.	Foreign country.	Number.
Alabama.....	2,065	Australia.....	21
Alaska.....	14	Austria Hungary.....	13
Arizona Territory.....	289	Belgium.....	8
Arkansas.....	5,994	Bermuda.....	1
California.....	8,004	Brazil.....	3
Colorado.....	3,381	British Columbia.....	13
Connecticut.....	8,713	Bulgaria.....	1
Delaware.....	1,764	Canada.....	1,315
District of Columbia.....	6,132	Central America.....	1
Florida.....	1,343	Chile.....	5
Georgia.....	1,671	China.....	12
Idaho.....	537	Corea.....	1
Illinois.....	49,711	Comoro Isles.....	1
Indiana.....	55,704	Cuba.....	5
Indian Territory.....	1,022	Denmark.....	13
Iowa.....	28,430	Ecuador.....	1
Kansas.....	29,421	Fiji Islands.....	2
Kentucky.....	21,441	France.....	36
Louisiana.....	1,788	Germany.....	403
Maine.....	17,610	Great Britain.....	495
Maryland.....	7,867	Guatemala.....	1
Massachusetts.....	25,953	Hawaii.....	8
Michigan.....	34,447	Holland.....	2
Minnesota.....	10,873	Honduras.....	1
Mississippi.....	1,641	India.....	1
Missouri.....	33,135	Italy.....	17
Montana.....	792	Japan.....	3
Nebraska.....	12,011	Liberia.....	2
Nevada.....	166	Mauritius.....	1
New Hampshire.....	7,707	Manitoba.....	1
New Jersey.....	13,375	Mexico.....	32
New Mexico Territory.....	450	Monaco.....	1
New York.....	60,325	Netherlands.....	8
North Carolina.....	2,497	New Zealand.....	3
North Dakota.....	977	Nicaragua.....	1
Ohio.....	75,498	Norway.....	12
Oklahoma Territory.....	1,387	Peru.....	1
Oregon.....	2,263	Portugal.....	3
Pennsylvania.....	63,986	Russia.....	1
Rhode Island.....	2,889	Samoa.....	1
South Carolina.....	814	Spain.....	5
South Dakota.....	3,572	South African Republic.....	4
Tennessee.....	12,214	Sweden.....	24
Texas.....	5,270	Switzerland.....	56
Utah Territory.....	544	Uruguay.....	1
Vermont.....	8,566	West Indies.....	7
Virginia.....	5,256	Unknown.....	99
Washington.....	2,885		
West Virginia.....	9,787	Total.....	2,646
Wisconsin.....	20,969		
Wyoming.....	364	Grand total.....	676,160
Total.....	673,514		

TABLE NO. 12.—Statement showing the different monthly rates of pension, and the number pensioned at each rate, of the Army and Navy invalids, and of the Army and Navy widows, minors, and dependents (war of 1861) on the rolls, under the general law, June 30, 1891, and a similar classification of those on the rolls at the same date under the act of June 27, 1890.

GENERAL LAW, JUNE 30, 1891.

Rate.	Invalids.			Widows and others.			Rate.	Invalids.			Widows and others.		
	Army.	Navy.	Total.	Army.	Navy.	Total.		Army.	Navy.	Total.	Army.	Navy.	Total.
\$1.00	19	1	20	-----	-----	-----	\$16.50	9	4	13	-----	-----	-----
2.00	16,853	183	17,036	-----	-----	-----	16.75	12	-----	12	-----	-----	-----
2.25	2	-----	2	-----	-----	-----	17.00	18,253	191	18,444	2,383	6	2,389
2.66 $\frac{2}{3}$	10	-----	10	-----	-----	-----	17.25	-----	2	2	-----	-----	-----
3.00	1,013	29	1,042	-----	-----	-----	17.50	15	7	22	-----	-----	-----
3.12 $\frac{1}{2}$	1	-----	1	-----	-----	-----	17.75	4	-----	4	-----	-----	-----
3.25	12	-----	12	-----	-----	-----	18.00	2,823	34	2,857	63	1	64
3.33 $\frac{1}{3}$	1	-----	1	-----	-----	-----	18.25	-----	5	5	-----	-----	-----
3.75	149	6	155	-----	-----	-----	18.50	12	1	13	-----	-----	-----
4.00	61,530	788	62,318	-----	-----	-----	18.75	117	3	120	-----	-----	-----
4.25	212	-----	212	-----	-----	-----	19.00	12	3	15	-----	-----	-----
4.50	1	-----	1	-----	-----	-----	19.25	9	-----	9	-----	-----	-----
5.00	773	57	830	-----	-----	-----	19.50	-----	4	4	-----	-----	-----
5.25	2	-----	2	-----	-----	-----	20.00	5,155	126	5,281	2,558	156	2,714
5.33 $\frac{1}{3}$	11	1	12	-----	-----	-----	20.50	1	-----	1	-----	-----	-----
5.62	1	-----	1	-----	-----	-----	20.75	2	2	4	-----	-----	-----
5.66 $\frac{2}{3}$	4	-----	4	-----	-----	-----	21.00	4	1	5	-----	-----	-----
5.75	9	-----	9	-----	-----	-----	21.25	3	-----	3	-----	-----	-----
6.00	52,071	510	52,581	-----	-----	-----	21.50	2	1	3	-----	-----	-----
6.25	49	3	52	-----	-----	-----	22.00	3,138	72	3,210	-----	-----	-----
6.37 $\frac{1}{2}$	3	-----	3	-----	-----	-----	22.50	104	4	108	-----	-----	-----
6.66 $\frac{2}{3}$	1	-----	1	-----	-----	-----	23.00	1	-----	1	-----	-----	-----
6.75	1	-----	1	-----	-----	-----	23.25	3	-----	3	-----	-----	-----
7.00	109	2	111	-----	-----	-----	23.50	1	-----	1	-----	-----	-----
7.25	-----	1	1	-----	-----	-----	23.75	1	-----	1	-----	-----	-----
7.50	477	9	486	-----	-----	-----	24.00	19,963	283	20,246	3	-----	3
7.75	12	2	14	-----	-----	-----	24.50	2	1	3	-----	-----	-----
8.00	82,196	1,103	83,299	414	18	432	25.00	2,896	86	2,982	701	126	827
8.12 $\frac{1}{2}$	1	-----	1	-----	-----	-----	25.25	1	-----	1	-----	-----	-----
8.25	11	1	12	-----	-----	-----	25.75	-----	3	3	-----	-----	-----
8.50	640	-----	640	-----	-----	-----	26.25	4	-----	4	-----	-----	-----
8.62 $\frac{1}{2}$	1	-----	1	-----	-----	-----	26.75	1	2	3	-----	-----	-----
8.75	4	1	5	-----	-----	-----	27.00	956	26	982	-----	-----	-----
9.00	556	5	561	-----	-----	-----	27.50	7	-----	7	-----	-----	-----
9.25	11	-----	11	-----	-----	-----	28.00	1	-----	1	-----	-----	-----
9.50	13	6	19	-----	-----	-----	28.75	1	-----	1	-----	-----	-----
9.75	3	4	7	-----	-----	-----	29.50	-----	1	1	-----	-----	-----
10.00	34,825	433	35,258	2	1	3	30.00	14,616	218	14,834	648	201	849
10.20	1	-----	1	-----	-----	-----	30.75	-----	2	2	-----	-----	-----
10.25	6	1	7	-----	-----	-----	31.00	-----	2	2	-----	-----	-----
10.50	12	10	22	-----	-----	-----	31.25	58	-----	58	-----	-----	-----
10.62	1	-----	1	-----	-----	-----	32.00	-----	3	3	1	-----	1
10.66 $\frac{2}{3}$	1	-----	1	-----	-----	-----	32.50	-----	5	5	-----	-----	-----
10.75	1	14	15	-----	-----	-----	33.00	1	2	3	-----	-----	-----
11.00	74	4	78	-----	-----	-----	33.50	-----	1	1	-----	-----	-----
11.25	232	11	243	-----	-----	-----	35.00	2	3	5	2	-----	2
11.33 $\frac{1}{3}$	1	-----	1	-----	-----	-----	35.50	-----	3	3	-----	-----	-----
11.50	25	4	29	-----	-----	-----	36.00	3,169	41	3,210	-----	-----	-----
11.75	7	3	10	-----	-----	-----	37.00	-----	1	1	-----	-----	-----
12.00	45,588	509	46,097	100,215	1,872	102,087	37.50	-----	-----	-----	1	-----	1
12.12 $\frac{1}{2}$	1	-----	1	-----	-----	-----	38.50	-----	1	1	-----	-----	-----
12.25	13	-----	13	-----	-----	-----	40.00	55	1	56	15	5	20
12.50	153	24	177	1	-----	1	40.25	-----	1	1	-----	-----	-----
12.75	378	1	379	-----	-----	-----	45.00	2,486	22	2,508	2	-----	2
13.00	586	5	591	-----	-----	-----	47.00	77	-----	77	-----	-----	-----
13.25	8	7	15	-----	-----	-----	48.00	1	-----	1	-----	-----	-----
13.33 $\frac{1}{3}$	4	-----	4	-----	-----	-----	49.00	2	-----	2	-----	-----	-----
13.50	24	7	31	-----	-----	-----	50.00	381	1	382	68	64	132
13.75	9	1	10	-----	-----	-----	53.00	1	-----	1	-----	-----	-----
14.00	16,737	141	16,878	2	-----	2	55.00	1	-----	1	-----	-----	-----
14.25	19	3	22	-----	-----	-----	57.00	1	-----	1	-----	-----	-----
14.50	4	4	8	-----	-----	-----	60.00	14	-----	14	-----	1	1
14.75	6	-----	6	-----	-----	-----	72.00	3,074	87	3,161	-----	-----	-----
14.87 $\frac{1}{2}$	1	-----	1	-----	-----	-----	75.00	1	-----	1	5	-----	5
15.00	2,940	102	3,042	1,450	112	1,562	100.00	33	3	36	15	3	18
15.25	-----	1	1	-----	-----	-----	166.66 $\frac{2}{3}$	-----	-----	-----	6	1	7
15.50	3	3	6	-----	-----	-----	208.33 $\frac{1}{3}$	-----	-----	-----	1	-----	1
15.75	-----	6	6	-----	-----	-----	416.66 $\frac{2}{3}$	-----	-----	-----	3	-----	3
16.00	17,682	183	17,865	1	1	2	Total	413,597	5,449	419,046	108,560	2,568	111,128
16.25	7	1	8	-----	-----	-----							

TABLE NO. 12.—*Statement showing the different monthly rates of pension, and the number pensioned at each rate, of the Army and Navy invalids, etc.—Continued.*

ACT OF JUNE 27, 1890.

Rate.	Invalids.			Widows and others.		
	Army.	Navy.	Total.	Army.	Navy.	Total.
\$6.00	15,726	664	16,390	.....	.....	.....
8.00	19,563	806	20,369	10,833	1,400	12,233
10.00	4,684	185	4,869	.....	.....	.....
12.00	57,163	2,321	59,484	1,376	36	1,412
Total	97,136	3,976	101,112	12,209	1,436	13,645
Grand total	510,733	9,425	520,158	120,769	4,004	124,773

TABLE No. 13.—List of pension agencies, with location, geographical limits, and names of pension agents, showing the balance of funds in the hands of each agent June 30, 1891.

Location.		Name of agent.	Amount.	Geographical limits.
City.	State.			
Augusta..... Boston.....	Maine Massachusetts ..	Joseph A. Clark William H. Osborne.	\$153, 805. 36 322, 075. 51	The State of Maine: Navy pensioners in this district paid at Boston, Mass. The States of Connecticut, Massachusetts, and Rhode Island, and all Navy pensioners residing in this and the Augusta and Concord districts.
Buffalo	New York	Jacob Schenkel- berger.	360, 819. 70	The counties in the State of New York not in the New York City district: All Navy pensioners in the State are paid at New York City.
Chicago	Illinois	Isaac Clements	410, 944. 37	The State of Illinois and all Navy pensioners residing in this and the Columbus, Des Moines, Detroit, Indianapolis, Louisville, Milwaukee, and Topeka districts.
Columbus ... Concord	Ohio	John G. Mitchell..... Thomas P. Cheney..	869, 633. 56 231, 474. 80	The State of Ohio: Navy pensioners in this district paid at Chicago.
Des Moines..	New Hampshire.	Stephen A. Marine	351, 168. 74	The States of New Hampshire and Vermont: Navy pensioners in this district paid at Boston.
Detroit	Iowa	Edward H. Harvey	273, 685. 74	The States of Iowa and Nebraska: Navy pensioners in this district paid at Chicago.
Indianapolis.	Michigan.....	Nicholas Ensley.....	346, 109. 08	The State of Michigan: Navy pensioners in this district paid at Chicago.
Knoxville ...	Indiana.....	William Rule.....	175, 574. 40	The State of Indiana: Navy pensioners in this district paid at Chicago.
Louisville ... Milwaukee ..	Tennessee	C. J. Walton	383, 174. 09	The States of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas: Navy pensioners in this district paid at Washington, D. C.
New York...	Kentucky	Levi E. Pond	402, 030. 96	The State of Kentucky: Navy pensioners in this district paid at Chicago.
	Wisconsin.....	Frank C. Loveland .	394, 843. 22	The States of Minnesota, North Dakota, South Dakota, and Wisconsin: Navy pensioners in this district paid at Chicago.
Philadelphia.	New York.....	William H. Shelmire	169, 820. 97	The counties in the State of New York of Albany, Clinton, Columbia, Delaware, Dutchess, Essex, Greene, Kings, Queens, New York, Orange, Putnam, Richmond, Rensselaer, Rockland, Saratoga, Schenectady, Sullivan, Suffolk, Ulster, Warren, Washington, and Westchester: All Navy pensioners in the State of New York, and all pensioners residing in the counties of the State of New Jersey, of Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Sussex, Union, and Warren.
	Pennsylvania....			The counties in the State of Pennsylvania of Berks, Bradford, Bucks, Carbon, Chester, Columbia, Dauphin, Delaware, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Monroe, Montgomery, Montour, Northampton, Northumberland, Philadelphia, Pike, Schuylkill, Sullivan, Susquehanna, Wayne, Wyoming, and York, all Navy pensioners in the State of Pennsylvania, and all pensioners residing in the counties in the State of New Jersey of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Ocean, and Salem.
Pittsburg....	Pennsylvania....	Herbert H. Bengough	149, 741. 49	The counties in the State of Pennsylvania not in the Philadelphia district: All Navy pensioners in the State are paid at Philadelphia.
San Francisco	California.....	John C. Currier	229, 101. 28	The States of California, Idaho, Montana, Nevada, Oregon, Washington, and Wyoming, the Territories of Alaska, Arizona, and Utah, including the Navy pensioners.
Topeka.....	Kansas	Bernard Kelly	40, 898. 30	The States of Colorado, Kansas, and Missouri, the Territories of New Mexico, Oklahoma, and the Indian Territory: Navy pensioners in this district are paid at Chicago.
Washington .	District of Co- lumbia.	Sidney L. Willson ..	445, 951. 27	The States of Delaware, Maryland, Virginia, and West Virginia and the District of Columbia, the inmates of the branches of the National Soldiers' Home, and pensioners residing in foreign countries, and all Navy pensioners in this and the Knoxville district.
			5, 713, 852. 84	

TABLE NO. 14.—Number of pension claims filed and allowed each year since July, 1861, and the number of pensioners on the rolls at the close of each year, together with the annual amount paid on account of pensions since July 1, 1860.

Fiscal year ending June 30—	Army.		Navy.		Army and Navy.		War of 1812.			Total number of applications filed.	Total number of claims allowed.	Number of pensioners on the roll.			Disbursements.	
	Applications filed.		Applications filed.		Claims allowed.		Applications filed.		Claims allowed.			Invalids.	Widows.	Total.		
	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Surviv- ors.	Widows.	Surviv- ors.							Widows.
1861	1,362	1,000	60	65	413	49	.....	.....	.....	2,487	462	4,337	4,299	8,636	\$1,072,461.55	
1862	26,380	22,377	290	285	4,121	3,763	.....	.....	.....	49,332	7,884	4,341	3,818	8,159	790,384.76	
1863	20,263	32,627	385	324	17,041	22,446	.....	.....	.....	53,599	39,487	7,821	6,970	14,791	1,025,139.91	
1864	27,299	44,464	455	466	15,212	24,959	.....	.....	.....	72,684	40,171	23,479	27,656	51,135	4,504,616.92	
1865	35,799	28,732	350	375	22,883	27,294	.....	.....	.....	65,256	50,177	35,880	50,106	85,986	8,525,153.11	
1866	15,905	20,265	250	333	16,589	19,893	.....	.....	.....	36,753	36,482	55,652	71,070	126,722	13,459,996.43	
1867	7,292	13,099	170	207	9,460	19,461	.....	.....	.....	20,768	28,921	75,957	93,686	153,183	18,619,956.46	
1868	11,035	14,496	290	245	7,292	15,904	.....	.....	.....	26,066	23,196	82,859	105,104	169,643	24,010,981.99	
1869	12,991	11,400	260	200	5,721	12,500	.....	.....	.....	24,851	18,221	87,521	111,165	187,963	28,422,884.08	
1870	8,837	8,985	190	142	7,934	8,399	.....	.....	.....	43,969	16,562	93,394	114,101	198,686	27,780,811.81	
1871	8,857	6,755	240	178	6,468	7,244	198	.....	31	26,391	34,333	93,394	114,101	207,495	33,077,383.63	
1872	8,728	6,427	248	120	6,551	4,073	17,504	.....	3,117	18,303	16,052	113,954	118,275	232,229	30,169,341.00	
1873	9,302	5,603	228	151	5,937	3,152	3,186	.....	2,242	16,734	10,462	119,500	118,911	238,411	29,185,289.62	
1874	11,926	5,294	310	178	5,760	4,736	563	.....	810	18,704	11,152	121,628	114,613	236,241	30,593,749.56	
1875	17,030	5,264	344	130	5,360	4,376	240	.....	416	23,523	9,977	122,989	111,832	234,821	29,683,116.63	
1876	16,532	5,269	271	97	7,282	3,861	73	.....	168	22,715	11,326	124,239	107,898	232,137	28,351,599.69	
1877	18,812	6,661	300	131	7,414	3,550	57	.....	126	44,587	11,962	128,723	103,381	232,104	28,580,157.04	
1878	36,835	9,767	599	215	7,242	3,379	817	.....	181	57,118	31,346	131,649	92,349	223,998	26,844,415.18	
1879	110,673	25,602	1,361	559	10,176	4,455	2,548	.....	18,177	141,466	19,545	138,615	104,140	242,755	33,780,526.19	
1880	18,455	10,527	472	225	21,394	3,920	284	.....	4,630	31,116	27,394	145,410	105,392	250,802	57,240,540.14	
1881	29,004	10,349	777	211	22,946	3,999	115	.....	1,965	40,939	27,664	164,110	104,720	268,830	50,626,538.51	
1882	35,039	11,878	777	251	32,014	5,303	26	.....	693	48,776	38,162	182,633	103,064	285,697	54,296,280.54	
1883	28,962	11,289	671	244	27,414	6,366	23	.....	822	41,785	34,192	206,042	97,616	303,658	60,431,972.85	
1884	27,959	11,557	725	277	27,580	7,743	24	.....	388	40,918	35,767	225,470	97,286	323,756	57,273,536.74	
1885	35,202	13,238	862	265	31,937	8,610	18	.....	426	49,895	40,857	247,146	97,979	345,125	65,693,706.72	
1886	36,484	15,759	836	338	35,283	11,217	5	.....	305	72,465	55,194	270,346	95,437	365,783	64,584,270.45	
1887	47,505	18,444	1,251	427	35,843	10,816	8	.....	231	75,726	60,252	306,298	99,709	406,007	74,815,486.85	
1888	52,152	23,597	1,312	579	36,830	11,924	2	.....	251	81,220	51,921	343,701	108,856	452,557	79,646,146.37	
1889	71,570	28,365	2,162	788	50,395	14,612	8	.....	181	105,044	66,637	373,699	116,026	489,725	89,131,968.44	
1890	20,519	17,521	1,404	590	41,381	11,914	4	.....	108	363,799	156,486	415,654	122,290	537,944	106,493,890.19	
1891	.....	.....	.....	.....	.....	.....	4	.....	79	.....	.....	536,821	139,339	676,160	118,548,959.71	
Total..	808,709	446,611	17,588	8,596	531,873	289,918	25,707	45,012	35,347	1,716,989	1,012,244	.....	.....	.....	1,277,261,263.07	

In the total number of applications filed in 1891 are included 243,680 invalids and 78,270 widows, etc., under the act of June 27, 1890, and 706 survivors and 875 widows of the war with Mexico. In the number of claims allowed in 1891 are included 88,611 invalids and 13,776 widows, etc., under the act of June 27, 1890, and 336 survivors and 385 widows of the war with Mexico. In the number of pensioners on the roll under the heads of "invalids" and "widows, etc.," are included pensioners under the act of June 27, 1890, and survivors and widows of the war of 1812, respectively, commencing with the year 1871, and survivors and widows of the war with Mexico, commencing with the year 1887. There were also filed during the year 353,582 applications under the act of June 27, 1890, in cases in which pension had already been allowed or applied for.

TABLE NO. 15.—*Army invalid claims under the general law allowed each year since July and allowed in the report years, giving also the whole number filed each year*

Years in which claims were filed.	The several years in which the claims were allowed and the number allowed each year.																
	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.
1862...	305	258	131	27	19	20	12	11	12	20	6	6	16	4	5	7	4
1863.....	3,657		9,331	1,138	517	395	235	185	143	293	156	110	129	159	121	139	147
1864.....			7,303	3,459	844	562	253	166	114	239	139	96	107	101	84	126	109
1865.....				10,045	7,819	1,863	685	417	223	382	198	132	100	92	96	113	122
1866.....					12,724	9,292	2,511	1,150	529	732	440	251	211	185	145	187	202
1867.....						3,586	3,626	1,132	525	724	349	356	149	153	88	154	139
1868.....							1,641	1,692	421	502	218	196	172	89	56	62	59
1869.....								2,238	2,208	1,284	493	300	182	142	124	97	102
1870.....									1,040	3,094	1,639	799	441	273	167	197	132
1871.....										342	1,946	1,055	438	348	214	149	125
1872.....											434	1,638	1,018	371	278	276	214
1873.....												1,322	1,762	674	342	461	253
1874.....													794	1,869	606	593	243
1875.....														937	2,243	1,169	483
1876.....															624	2,595	1,844
1877.....																777	2,217
1878.....																	908
1879.....																	
1880.....																	
1881.....																	
1882.....																	
1883.....																	
1884.....																	
1885.....																	
1886.....																	
1887.....																	
1888.....																	
1889.....																	
1890.....																	
1891.....																	
Total	305	3,915	16,765	14,669	21,923	15,718	8,963	6,991	5,215	7,612	6,018	6,261	5,519	5,397	5,193	7,102	7,303

NOTE.—The total number (40,453) of claims allowed in 1891 excludes 124 old war

1, 1861, showing in each year's allowance the number of those which were filed each year and the percentage of the number allowed out of those filed each year.

The several years in which the claims were allowed and the number allowed each year.														Number of invalid claims filed each year.	Per cent. of claims allowed of each year's filing.
1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	Total.		
5	24	78	38	18	9	16	15	17	9	10	7	16	1,125	1,362	82.6
135	281	415	392	384	263	280	269	248	230	191	195	150	19,688	26,380	74.6
100	228	395	328	305	240	264	220	226	194	142	138	121	16,603	20,263	81.8
92	172	335	234	284	189	204	168	160	110	125	121	85	24,566	27,299	90.0
158	257	477	368	335	255	236	219	208	177	136	130	125	31,640	35,799	88.4
104	190	339	281	262	202	263	187	184	131	107	97	77	13,405	15,905	84.3
49	109	177	99	124	93	190	80	92	61	52	51	31	6,316	7,292	86.6
54	143	312	267	208	180	282	141	141	115	92	90	69	9,264	11,035	84.0
121	220	451	379	319	243	363	233	234	164	138	115	123	10,885	12,991	83.8
100	228	368	293	243	218	241	211	165	125	116	116	78	7,119	8,837	80.6
153	251	404	328	288	231	314	226	193	144	116	110	81	7,068	8,857	79.8
123	257	454	330	274	209	221	197	186	161	103	136	93	7,558	8,728	86.6
188	328	497	384	312	213	385	254	213	169	117	128	110	7,403	9,302	79.6
273	455	756	559	478	349	461	323	277	239	158	176	137	9,473	11,926	79.4
608	758	1,219	905	773	578	630	570	565	413	316	338	267	13,003	17,030	76.4
1,464	1,063	1,570	1,050	1,006	709	740	698	618	444	331	340	284	13,311	16,532	80.5
2,568	1,806	2,385	1,400	986	888	879	816	773	559	413	475	326	15,182	18,812	80.7
778	2,685	7,767	4,865	4,116	2,298	2,045	1,819	1,618	1,065	836	870	605	31,367	36,835	85.2
.....	263	2,358	9,825	17,626	12,277	9,706	9,529	7,880	5,613	3,895	4,159	2,814	85,945	110,673	77.7
.....	.....	155	157	1,350	1,651	1,499	1,555	1,463	1,109	909	1,030	799	11,677	18,455	63.3
.....	.....	.....	133	1,485	2,326	2,245	2,667	2,526	2,038	1,512	1,709	1,228	17,869	29,001	61.6
.....	.....	.....	.....	582	2,579	2,517	3,279	3,188	2,720	2,090	2,303	1,695	20,953	35,039	59.8
.....	.....	.....	.....	.....	917	2,434	3,092	2,736	2,363	1,834	1,929	1,380	16,685	28,962	57.6
.....	.....	.....	.....	.....	.....	810	3,901	3,443	2,696	2,038	2,182	1,429	16,499	27,959	59.0
.....	.....	.....	.....	.....	.....	.....	883	5,842	5,423	3,849	3,714	2,163	21,874	35,202	62.1
.....	.....	.....	.....	.....	.....	.....	.....	1,506	6,383	5,317	4,967	2,826	20,999	36,204	58.0
.....	.....	.....	.....	.....	.....	.....	.....	.....	2,234	9,499	9,240	4,476	25,449	47,349	53.7
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,557	12,180	7,784	21,521	51,919	41.0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,407	10,375	12,782	71,318	17.9
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	706	706	20,199	3.5
7,073	9,718	20,912	22,615	31,758	27,117	27,225	31,552	34,702	35,089	35,999	49,453	40,453	517,935	807,468	.....

invalids, which are included in the number of army invalids as reported in Table 1.

TABLE NO. 16.—*Number of claims of each class filed, admitted, and rejected during the*

ACTS OF JULY 14, 1862,

Fiscal year ending June • 30, 1891.	Army.						Navy.		
	Invalid.			Widows, etc.			Invalid.		
	Original.	Increase.	Total.	Original.	Increase.	Total.	Original.	Increase.	Total.
Claims on the files June 30, 1890.....	306, 827	229, 260	536, 087	148, 363	964	149, 327	9, 212	1, 753	10, 965
Claims filed during the year	20, 519	138, 835	159, 354	17, 521	755	18, 276	1, 404	1, 765	3, 169
Total	327, 346	368, 095	695, 441	165, 884	1, 719	167, 603	10, 616	3, 518	14, 134
Claims admitted.....	40, 577	71, 579	112, 156	11, 701	474	12, 175	804	661	1, 465
Claims rejected.....	12, 998	188, 981	201, 979	9, 899	237	10, 136	290	816	1, 106
Total disposed of....	53, 575	260, 560	314, 135	21, 600	711	22, 311	1, 094	1, 477	2, 571
Claims pending June 30, 1891.....	147, 745	107, 535	255, 280	74, 367	1, 008	75, 375	4, 513	2, 041	6, 554
Claims on rejected files June 30, 1891.....	139, 024	.....	139, 024	79, 816	.....	79, 816	5, 299	.....	5, 299
Total June 30, 1891..	286, 769	107, 535	394, 304	154, 183	1, 008	155, 191	9, 812	2, 041	11, 853

ACT OF JUNE

Fiscal year ending June 30, 1891.	Army.					
	Invalid.			Widows, etc.		
	Original.	Additional.	Total.	Original.	Additional.	Total.
Claims filed during the year.....	227, 928	247, 362	475, 290	73, 665	83, 306	156, 971
Claims admitted.....	85, 047	13, 152	98, 199	12, 337	5	12, 342
Claims rejected	18, 588	161	18, 749	2, 875	.....	2, 875
Total disposed of...	103, 635	13, 313	116, 948	15, 212	5	15, 217
Claims pending June 30, 1891.....	124, 293	234, 049	358, 342	58, 453	83, 301	141, 754
Claims on rejected files June 30, 1891.....	18, 588	161	18, 749	2, 875	.....	2, 875
Total June 30, 1891..	142, 881	234, 210	377, 091	61, 328	83, 301	144, 629

Under the head of "Widows, etc.," in the Army and Navy classes are included minor children and dependent relatives.

There were received during the year 359 applications for bounty-land warrants, 48 were issued and 87 were rejected; at the close of the year 953 applications were pending, and 93,806 were on the rejected files.

There were allowed during the year 33 claims for arrears of pension in the case of those who were in receipt of a pension January 25, 1879, and granted arrears by the act of that date.

year, and the comparative condition of the files at the beginning and close of the year.

AND MARCH 3, 1873.

Navy.			Army and Navy restorations.	Total Army and Navy.	War of 1812.				Mexican war (act of January 29, 1887).		Total number of original claims.	Aggregate of all classes.
Widows, etc.					Survivors.		Widows.		Survivors, original.	Widows, original.		
Original.	Increase.	Total.			Original.	Increase.	Original.	Increase.				
3, 729	30	3, 759	.....	700, 138	9, 279	1	9, 796	2	3, 664	2, 046	492, 916	724, 926
590	30	620	.....	181, 419	11	4	140	9	706	875	41, 766	183, 164
4, 319	60	4, 379	.....	881, 557	9, 290	5	9, 936	11	4, 370	2, 921	534, 682	908, 090
213	33	246	*1, 812	126, 042	4	3	79	.....	336	385	54, 099	126, 849
97	.....	97	.....	213, 318	.....	.....	.....	.....	148	101	23, 533	†213, 567
310	33	343	.....	339, 360	4	3	79	.....	484	486	77, 632	340, 416
1, 995	27	2, 022	.....	339, 231	113	2	370	11	1, 048	1, 518	231, 669	342, 293
2, 111	.....	2, 111	.....	226, 250	9, 173	.....	9, 487	.....	2, 986	1, 018	248, 914	248, 914
4, 106	27	4, 133	.....	565, 481	9, 286	2	9, 857	11	4, 034	2, 536	480, 583	591, 207

27, 1890.

Navy.						Aggregate of all classes.	Remarks.
Invalid.			Widows, etc.				
Original.	Additional.	Total.	Original.	Additional.	Total.		
15,752	2,557	18,309	4,605		4,605	655,175	Those under the head of "Additional" consist of * applicants who have also prior claims under old acts. During the year there were 443 renewals under act of June 27, 1890.
3,564	405	3,969	1,439	.....	1,439	115,949	
834	.....	834	132	.....	132	22,590	
4,398	405	4,803	1,571	.....	1,571	138,539	
11,354	2,152	13,506	3,034	.....	3,034	516,636	
834	.....	834	132	.....	132	22,590	
12,188	2,152	14,340	3,166		3,166	539,226	

* In addition to the above there were 2 widows, war of 1812, and 2 widows, Mexican war, restored during the year.

† This includes a large number of claims which were found by actual count to be duplicates; also claims which were rejected, and after such action they were returned to the admitted files.

During the year there were 65 increase Mexican cases, and 13 increase widows, war of 1812, allowed by special act.

TABLE NO. 17.—Comparative statement of pension claims settled

ACTS OF JULY 14, 1862,

Year.	Claims admitted and rejected.	Army.						Navy.		
		Invalid.			Widows, etc.			Invalid.		
		Original.	Increase.	Total.	Original.	Increase.	Total.	Original.	Increase.	Total.
1881..	Admitted	21, 143	12, 353	33, 496	3, 717	200	3, 917	251	154	405
1881..	Rejected	2, 625	8, 875	11, 500	1, 137	30	1, 167	55	65	120
	Total.....	23, 768	21, 228	44, 996	4, 854	230	5, 084	306	219	525
1882..	Admitted	22, 684	9, 435	32, 119	3, 910	48	3, 958	262	88	350
1882..	Rejected	4, 030	15, 199	19, 229	1, 512	26	1, 538	128	149	277
	Total.....	26, 714	24, 634	51, 348	5, 422	74	5, 496	390	237	627
1883..	Admitted	31, 801	22, 554	54, 355	5, 216	67	5, 283	213	112	325
1883..	Rejected	16, 901	19, 978	36, 879	4, 512	28	4, 540	530	141	671
	Total.....	48, 702	42, 532	91, 234	9, 728	95	9, 823	743	253	996
1884..	Admitted	27, 173	22, 190	49, 363	6, 260	56	6, 316	241	270	511
1884..	Rejected	17, 587	19, 887	37, 474	4, 983	15	4, 998	347	139	486
	Total.....	44, 760	42, 077	86, 837	11, 243	71	11, 314	588	409	997
1885..	Admitted	27, 286	33, 648	60, 934	7, 632	144	7, 776	294	182	476
1885..	Rejected	9, 028	19, 281	28, 309	3, 058	28	3, 086	189	89	278
	Total.....	36, 314	52, 929	89, 243	10, 690	172	10, 862	483	271	754
1886*..	Admitted	31, 619	33, 008	64, 627	8, 501	*65, 313	73, 814	318	271	589
1886..	Rejected	15, 918	41, 956	57, 874	3, 728	50	3, 778	277	279	556
	Total.....	47, 537	74, 964	122, 501	12, 229	65, 363	77, 592	595	550	1, 145
1887..	Admitted	34, 758	31, 791	66, 549	11, 034	83	11, 117	525	223	748
1887..	Rejected	7, 657	32, 024	39, 681	3, 481	70	3, 551	321	247	568
	Total.....*	42, 415	63, 815	106, 230	14, 515	153	14, 668	846	470	1, 316
1888..	Admitted	35, 089	44, 785	79, 874	10, 611	341	10, 952	754	449	1, 203
1888..	Rejected	32, 213	30, 739	62, 952	11, 060	50	11, 110	740	326	1, 066
	Total.....	67, 302	75, 524	142, 826	21, 671	391	22, 062	1, 494	775	2, 269
1889..	Admitted	35, 999	70, 194	106, 193	11, 644	116	11, 760	831	744	1, 576
1889..	Rejected	11, 122	37, 049	48, 171	5, 689	41	5, 730	1, 160	442	1, 602
	Total.....	47, 121	107, 243	154, 364	17, 333	157	17, 490	1, 991	1, 186	3, 177
1890..	Admitted	49, 453	76, 511	125, 964	14, 323	120	14, 443	942	901	1, 843
1890..	Rejected	8, 120	99, 013	107, 133	5, 791	50	5, 841	392	977	969
	Total.....	57, 573	175, 524	233, 097	20, 114	170	20, 284	1, 334	1, 878	3, 212
1891..	Admitted	40, 577	71, 579	112, 156	11, 701	474	12, 175	804	661	1, 465
1891..	Rejected	12, 998	188, 981	201, 979	9, 899	237	10, 136	290	816	1, 106
	Total.....	53, 575	260, 560	314, 135	21, 600	711	22, 311	1, 094	1, 477	2, 571

*Under act of March 19, 1886, there were 79,989 widows' pensions increased (included in the above) for which no applications were required.

by allowance and rejection each year since 1881, except arrears.

AND MARCH 3, 1873.

Navy.			Army and Navy restorations.	Total Army and Navy.	War of 1812.				Mexican war (act of Jan. 29, 1887).		Total number of original claims.	Aggregate of all classes.
Widows, etc.					Survivors.		Widows.		Surviv-ors orig-inal.	Widows original.		
Orig-i-nal.	In-crease.	Total.			Orig-i-nal.	In-crease.	Orig-i-nal.	In-crease.				
203 83	10	213 83	1,344 20	39,375 12,890	115 391	..... .....	1,965 1,605	..... .....	..... .....	..... .....	..... .....	41,455 14,886
286	10	296	1,364	52,265	506	.....	3,570	.....	.....	.....	.....	56,341
89 59	11	100 59	649	37,176 21,103	26 49	..... .....	693 143	..... .....	..... .....	..... .....	..... .....	37,895 21,295
148	11	159	649	58,279	75	.....	836	.....	.....	.....	.....	59,190
87 346	13	100 346	796	60,859 42,438	23 51	..... .....	822 200	..... .....	..... .....	..... .....	38,162 22,540	61,704 42,687
433	13	446	796	103,295	74	.....	1,022	.....	.....	.....	60,702	104,391
106 112	1 1	107 113	1,221	57,518 43,071	24 50	..... .....	388 262	..... .....	..... .....	..... .....	34,192 23,341	57,930 43,383
218	2	220	1,221	100,589	74	.....	650	.....	.....	.....	57,533	101,313
111 57	11	122 57	1,835	71,143 31,730	18 38	..... .....	426 167	..... .....	..... .....	..... .....	35,767 12,537	71,587 31,935
168	11	179	1,835	102,873	56	.....	593	.....	.....	.....	48,304	103,522
109 385	*1,280 2	1,389 387	2,229	*142,648 62,595	5 22	3	305 113	13,396 2	..... .....	..... .....	40,857 20,443	*156,357 62,732
494	1,282	1,776	2,229	205,243	27	3	418	13,398	.....	.....	61,300	219,089
183 91	8 1	191 92	2,707	81,312 43,892	8 18	2	231 59	..... .....	7,552 251	903 14	55,194 11,892	90,008 44,234
274	9	283	2,707	125,204	26	2	290	.....	7,803	917	67,086	134,242
205 235	11	216 235	2,028	92,245 75,363	2 11	..... .....	251 56	..... .....	9,048 2,062	4,296 588	60,252 46,965	105,838 78,080
440	11	451	2,028	167,608	13	.....	307	.....	11,110	4,880	107,227	183,918
280 341	11	291 341	1,754	119,819 55,844	8 10	8	181 268	7	1,772 348	1,206 209	51,921 19,147	123,001 56,679
621	11	632	1,754	175,663	18	8	449	7	2,120	1,415	71,068	179,680
335 126	7 3	342 129	1,896	142,592 114,072	4 5	2 1	108 75	1	794 177	678 106	66,337 14,793	144,179 114,436
461	10	471	1,896	256,664	9	3	183	1	971	784	81,430	258,615
213 97	33	246 97	1,812	126,042 213,318	4	3	79 .....	..... .....	336 148	385 101	54,099 23,533	126,849 †213,567
310	33	343	1,812	339,360	4	3	79	.....	484	486	77,632	340,416

†This includes a large number of claims which have been found by actual count to have been thus disposed of.

TABLE NO. 17.—*Comparative statement of pension claims settled by*

ACT OF JUNE

Year.	Claims admitted and rejected.	Army.					
		Invalid.			Widows, etc.		
		Original.	Additional.	Total.	Original.	Additional.	Total.
1891..	Admitted	85,047	13,152	98,199	12,337	5	12,342
1891..	Rejected	18,588	161	18,749	2,875	.....	2,875
	Total.....	103,635	13,313	116,948	15,212	5	15,217

allowance and rejection each year since 1881, except arrears—Continued.

27, 1890.

Navy.						Aggregate of all claims.	Remarks.
Invalid.			Widows, etc.				
Original.	Additional.	Total.	Original.	Additional.	Total.		
3,564	405	3,969	1,439	.....	1,439	115,949	Those under the head of "additional" consist of applicants who have also prior claims under old acts.
834	.....	834	132	.....	132	22,590	
4,398	405	4,803	1,571	.....	1,571	138,539	

TABLE NO. 18.—*Report of certificates issued during the fiscal year ending June 30, 1891.*

Months.	Original.														Additional, etc., act of June 27, 1890.	Reissue.	Restoration.	Under acts of—				Supplemental.	Duplicate.	Accrued pension.	Arrears.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Army.		Navy.		Act of June 27, 1890.				War of 1812.		Old war.		Mexi- can war.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Invalids.	Widows, etc.	Invalids.	Widows, etc.	Army invalids.	Army widows, etc.	Navy invalids.	Navy widows, etc.	Survivors.	Widows.	Invalids.	Widows.	Survivors.	Widows.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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*Of the "Additional, etc.," act June 27, 1891, 443 were renewals, 12 reissues, and 2 supplementals.

TABLE NO. 19.—Operations of the special-examination service of the office, showing investigations made, etc., during the fiscal year ending June 30, 1891.

	Number of investiga- tions made, 1890.	Expenses in 1890.	Number of investiga- tions made, 1891.	Expenses in 1891.
Number of cases returned by special examiners in the field	32, 598		24, 359	
Expense of special examiners, subsistence		\$250, 578. 21		\$214, 886. 79
Expense of special examiners, travel, etc. (including cost of travel over subsidized railroads)		138, 833. 69		132, 713. 01
Total	32, 598	389, 411. 90	24, 359	347, 599. 80

Statement showing a comparison of work performed by special examiners, with cost of same, during fiscal years ending June 30, 1890 and 1891.

	1890.	*1891.
Average number of examiners per month	230	198
Number of reports made	32, 598	24, 359
Average number of reports per examiner per month	11 $\frac{1}{2}$	10 $\frac{1}{4}$
Number of depositions taken	162, 875	127, 089
Average number of depositions per examiner per month	58 $\frac{1}{2}$	53 $\frac{5}{8}$
Amount of expenses exclusive of salary	\$389, 411. 90	\$347, 599. 80
Average cost of each report	\$11. 95	\$14. 27
Average cost of each deposition	\$2. 39	\$2. 74

Work accomplished by review section during fiscal years ending June 30, 1890 and 1891.

	1890.	1890.	1891.	1891.
Reviewers employed, average number of		8		7
Number of days employed		2, 418		1, 820
Number of cases submitted for admission		1, 673		2, 097
Number of cases submitted for rejection		233		236
Number of cases submitted for further examination		22, 904		14, 027
Number of cases otherwise disposed of		1, 242		1, 171
Number of cases reviewed		26, 052		17, 511
Number of circulars, calls, and letters to special examiners		1, 906		1, 546
Number of cases in division, July 1, 1890			10, 534	
Number of cases received from July 1, 1890 to June 30, 1891			9, 319	19, 853
Number of cases submitted to board of review	16, 048		12, 892	
Number of cases sent to admitted files	186		95	
Number of cases sent to other divisions	2, 970	19, 204	3, 349	
Total number of cases in division July 1, 1890 and 1891		10, 534		16, 336
Number of cases detailed to special examiners in field:				
Original examination	16, 250		8, 390	
Further examination	28, 705		16, 278	
Criminal examination	435	45, 390	230	24, 898
Number of reports made by special examiners upon cases returned from the field		43, 676		31, 450

* The increased cost per case examined in the field, for the past fiscal year, as compared with the cost of same for the preceding year, was caused by the examiners having much larger territory to travel over and less work in any given locality, making it necessary many times to make trips of hundreds of miles to obtain only one deposition.

TABLE NO. 20.—*Detailed report of work completed in the army and navy survivors' division from July 1, 1890, to June 30, 1891, inclusive, showing number of names with post-office addresses supplied to the adjudicating divisions, the special examination division, and to claimants or their attorneys.*

	Commis- sioned officers.	Non- commis- sioned officers.	Privates.	Total of names.	Total of cases.	Special names.
Eastern division.....	4,358	5,793	17,928	28,079	3,456	1,625
Middle division	2,965	3,507	11,415	17,887	2,402	1,313
Western division	3,212	3,465	12,197	18,874	2,317	1,789
Southern division	1,653	1,952	7,679	11,284	1,398	561
Old war and navy division	1,506	1,440	6,062	9,008	1,440	1,154
Special-examination division	837	1,022	3,800	5,659	857	469
Miscellaneous calls division	16,009	14,272	34,858	65,139	14,340	16,266
Totals	30,540	31,451	93,939	155,930	26,210	23,177

Total number of names with post-office addresses furnished in 26,210 cases	155,930
Addresses supplied to specified names	23,177
Circular lists of officers and comrades	14,340
Letters and circular letters	11,104
Circular cards sent out	291,441
Jackets written for the record division, October and November	13,820
Calls on Adjutant-General U. S. A.	2,025
Calls on Surgeon-General U. S. A.	375
Calls on Navy Department	899
Post-office addresses of surgeons furnished during the year	4,504

TABLE No. 21.—Report of the mail division for the fiscal year ending June 30, 1891.

	1890.						1891.						
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	Total.
RECEIVED.													
Original invalid cases*	4,349	2,479	2,387	2,345	2,242	1,992	2,076	2,040	2,426	2,291	1,859	1,754	28,240
Original widows' cases*	2,213	1,681	2,075	1,829	1,651	1,680	1,584	1,442	1,509	1,532	1,501	1,309	20,006
Original 1812 cases*	11	22	24	9	12	17	15	9	9	12	12	8	160
Original bounty-land cases*	29	31	43	49	29	31	22	21	45	29	31	32	392
Original Navy cases*	177	87	130	118	100	108	122	119	138	135	73	117	1,424
Original old war cases and Mexican service.	166	192	182	185	149	118	151	151	136	147	135	112	1,824
Applications for increase	14,425	14,598	13,952	11,488	9,883	14,082	13,600	10,760	11,345	8,444	7,022	9,059	138,658
Communications from the Departments	2,242	1,652	1,326	1,641	1,602	2,093	2,377	2,238	3,525	3,365	3,793	3,600	29,454
Applications (act June 27, 1890).	64,292	330,276	71,177	36,205	24,391	23,009	22,765	20,630	22,607	21,392	19,461	21,204	677,409
Applications for accrued pension	423	408	527	390	343	576	439	406	725	577	670	845	6,329
Pieces of additional evidence	40,673	48,184	38,548	48,232	57,939	81,471	97,425	90,863	110,396	124,064	102,746	91,958	932,499
Fee agreements in duplicate	7,890	8,266	7,320	7,726	7,599	7,523	7,368	13,420	10,364	28,055	7,388	6,884	119,803
Applications for transfer	112	88	95	103	93	93	148	98	116	147	95	129	1,317
Applications for new certificate.	122	134	184	131	166	183	151	129	183	125	144	213	1,865
Reports from Adjutant-General.	13,105	10,161	8,584	10,238	13,289	22,333	41,978	41,448	44,630	42,613	42,251	55,237	345,867
Reports from Surgeon-General.	64	29	41	33	41	69	69	47	43	34	50	38	558
Miscellaneous letters (not inquiries)	17,585	15,952	14,817	13,722	14,470	15,935	19,644	15,648	20,688	24,332	21,665	21,202	215,660
Pension certificates returned by pension agents	6,161	8,894	4,126	9,700	6,389	5,766	6,986	7,979	5,475	8,055	2,986	8,204	80,721
Surgeons' certificates	25,360	21,037	14,606	17,699	16,700	31,664	38,770	44,856	61,825	61,528	51,230	53,403	438,678
Orders for medical examination returned	20,002	19,680	15,798	17,614	15,943	22,954	43,496	28,802	60,744	64,373	49,641	40,956	400,003
Accounts from examining surgeons.	8,918	8,792	8,765	8,654	8,026	10,302	11,487	10,899	13,854	12,314	12,331	15,819	130,161
Reports and cases from special examiners	3,697	3,739	3,714	4,313	2,328	2,644	2,195	1,966	1,806	1,648	1,529	1,775	31,354
Reports from pension agents.	144	147	142	126	131	141	155	126	144	137	157	235	1,785
Daily reports of special examiners.	9,633	9,598	9,542	6,696	4,918	4,806	4,600	4,073	4,399	4,180	4,079	4,352	70,876
Credibility of witness circulars	7,452	6,410	6,116	4,091	5,915	5,760	6,235	4,538	7,538	5,998	5,112	4,758	69,923
Number of dead letters returned by Post-Office													
Department.	3,291	2,486	2,125	4,590	7,101	6,819	9,521	9,998	12,194	11,870	7,980	10,126	88,101
Army and Navy survivors' cards	5,022	5,040	5,228	18,067	4,746	11,528	21,558	26,495	32,779	14,123	26,373	45,617	216,576
Congressional communications.	14,732	14,559	14,413	7,963	6,881	19,743	21,902	17,458	13,367	8,137	7,233	8,429	154,817
Letters of inquiry	69,161	67,035	87,634	94,584	84,351	78,800	95,680	83,435	121,448	132,794	130,019	125,719	1,170,660
Money received in mail	\$641.00	\$836.50	\$516.33	\$838.10	\$366.00	\$785.27	\$3,379.25	\$1,315.96	\$2,174.55	\$1,753.40	\$5,482.25	\$2,065.72	\$20,154.33
Postage stamps received in mail	1,530	891	669	716	783	964	956	689	1,170	754	702	784	10,608
MISCELLANEOUS.													
Number of foreign letters sent (postage prepaid)	71	52	69	78	77	215	319	159	191	203	229	169	1,832
Total number of pieces received for the year	341,451	601,657	333,621	328,541	297,428	372,240	472,519	440,094	564,458	582,451	507,566	533,094	5,375,120
Total number of letters sent out for the year, and cards	199,915	163,865	177,044	463,436	324,992	456,669	443,194	309,546	390,448	324,261	347,425	325,696	3,926,491
Calls on Adjutant-General sent (not included in letters sent)	11,261	9,631	8,165	11,010	12,260	20,939	42,795	38,944	42,324	39,441	41,158	60,605	338,533
Blanks sent (not included in letters sent)	13,299	6,886	2,114	1,851	2,167	1,991	2,085	1,516	2,545	1,608	1,595	1,495	39,152

* This includes duplicates.

TABLE NO. 22.—Names of surviving widows of Revolutionary soldiers who have been regularly paid their pensions to June 4, 1891, with their ages and places of residence at that date.

Name.	Age.	Name of soldier.	Service of soldier.	Town.	County.	State.
Aldrich, Lovey	91	Aldrich, Caleb	New Hampshire and Rhode Island troops.	Seattle.....	King	Washington.
Betz, Elizabeth	88	Betz, Peter.....	Pennsylvania troops.....	Harrisburg.....	Dauphin.....	Pennsylvania.
Brown, Mary	86	Brown, Joseph.....	do	Knoxville.....	Knox.....	Tennessee.
Cloud, Nancy	78	Cloud, William.....	Virginia troops.....	St. Paul.....	Carroll.....	Virginia.
Dabney, Sarah.....	91	Dabney, John Q	do	Barry.....	Pike.....	Illinois.
Damon, Esther S	77	Damon, Noah	Massachusetts troops.....	Plymouth Union	Windsor.....	Vermont.
Dunmore, Jane	90	Merrill, James.....	Connecticut troops	Broadalin.....	Fulton.....	New York.
Green, Nancy A	73	Edens, Elias	South Carolina troops	Napoleon.....	Ripley.....	Indiana.
Hale, Lucy*	86	Wallace, Nathaniel	New York troops	Lansing	Ingham.....	Michigan.
Heath, Sally	73	Heath, William	North Carolina troops	Burnside	Pulaski.....	Kentucky.
Hurlburt, Sarah C *	77	Weeks, Elijah	Massachusetts troops	Chatham Valley.....	Tloga	Pennsylvania.
Jones, Nancy	78	Darling, James	North Carolina troops	Jonesboro	Washington	Tennessee.
Lockwood, Betsey*	77	Mather, Joseph	Connecticut troops	Darien.....	Fairfield.....	Connecticut.
Mayo, Rebecca	78	Mayo, Stephen.....	Virginia troops	Newbern	Pulaski.....	Virginia.
Morton, Olive C	80	Tuman, Peter.....	New York troops	Elva	Tuscola.....	Michigan.
Morse, Lucy	90	Morse, Abial.....	Connecticut troops	East Barnard.....	Windsor.....	Vermont.
Rains, Nancy	99	Rains, John	Virginia troops	Carter Furnace.....	Carter.....	Tennessee.
Richardson, Patty.....	90	Richardson, Godfrey.....	New York troops.....	East Bethel.....	Windsor.....	Vermont.
Smith, Meridy	86	Smith, William	North Carolina troops	Newnan	Coweta	Georgia.
Snead, Mary	75	Snead, Bowdoin.....	Virginia troops	Parksley	Accomac	Virginia.
Turner, Asenath	86	Durham, Samuel.....	Connecticut troops	Manchester.....	Ontario	New York.
Weatherman, Nancy.....	81	Glascok, Robert	Virginia troops	Lineback	Carter.....	Tennessee.
Young, Anna Maria	99	Young, Jacob.....	Pennsylvania troops	Easton.....	Northampton.....	Pennsylvania.

* Daughters pensioned by special act.

PENSIONS AND PENSION APPEALS.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., October 1, 1891.

The SECRETARY:

The work done by the Board of Pension Appeals under my supervision, during the fiscal year ending July 1, 1891, including the adjudication of pension claims that have been filed on appeal to the head of the Department from the Bureau of Pensions, the settlement of appeals involving attorneys' fees in pension cases, and the current correspondence of my office relating to such appeals, is summarized in the following tabulated statements, viz:

ANNUAL STATEMENT.

TABLE I.

ORIGINAL APPEALS.

Statement showing disposition of pension claims from July 1, 1890, to June 30, 1891.

	Appeals pending on the first day of the month.	Appeals filed during the month.	Total.	Action of the Pension Office sustained.	Action of the Pension Office reversed.	Reconsidered by the Pension Office pending appeal.	Appeals dismissed.	Total appeals disposed of.
1890.								
July	4,850	235	5,085	163	15	6	15	199
August	4,886	165	5,051	114	13	2	10	139
September	4,912	249	5,161	153	26	15	9	203
October	4,958	414	5,372	171	29	30	16	246
November	5,126	201	5,327	195	26	3	4	228
December	5,099	112	5,211	138	20	12	13	183
1891.								
January	5,028	401	5,429	186	33	1	11	231
February	5,198	228	5,426	155	28	5	22	210
March	5,216	440	5,656	310	41	13	11	375
April	5,281	262	5,543	242	48	22	15	327
May	5,216	223	5,439	224	40	77	4	345
June	5,094	342	5,436	192	20	183	11	406
July	5,030							
Total		3,272		2,243	339	369	141	3,092

TABLE II.

MOTIONS FOR RECONSIDERATION.

Statement showing disposition of motions for reconsideration from July 1, 1890, to June 30, 1891.

	Motions for reconsideration pending on the first of the month.	Motions for reconsideration filed during the month.	Total.	Motions for reconsideration overruled.	Motions for reconsideration sustained.	Reconsidered and allowed by the Commissioner of Pensions.	Motions for reconsideration dismissed.	Total motions for reconsideration disposed of.	Letters referred to the Commissioner of Pensions.	Letters sent.
1890.										
July	511	10	521	14	2	2	2	20	723	635
August	501	8	509	32	2	.....	.....	34	566	481
September	475	21	496	42	3	1	3	49	734	569
October	447	20	467	9	3	.....	1	13	1,057	753
November	454	12	466	57	3	.....	.....	60	664	370
December	406	4	410	41	4	.....	5	50	768	313
1891.										
January	360	22	382	14	5	3	.....	22	1,043	664
February	360	21	381	19	3	.....	.....	22	966	508
March	359	22	381	42	7	.....	.....	49	1,307	705
April	332	14	346	5	3	2	.....	10	872	497
May	336	17	353	23	1	.....	.....	24	791	402
June	329	5	334	12	2	3	.....	17	1,000	524
July	317	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	176	.....	310	38	11	11	370	10,491	6,421

TABLE III.

FEE APPEALS.

Statement showing disposition of appeals relating to attorneyship and fees from July 1, 1890, to June 30, 1891

	Fee appeals pending on the first day of the month.	Fee appeals filed during the month.	Total.	Action of Pension Office sustained.	Action of the Pension Office reversed.	Reconsidered by the Pension Office pending appeal.	Fee appeals dismissed.	Total fee appeals disposed of during the month.
1890.								
July	61	32	93	21	2	7	.....	30
August	63	15	78	8	1	6	.....	15
September	63	40	103	5	1	3	.....	9
October	94	76	170	5	.....	4	.....	9
November	161	22	183	30	3	34	.....	67
December	116	43	159	13	5	17	1	36
1891.								
January	123	60	183	24	2	10	.....	36
February	147	74	221	2	5	13	1	46
March	175	83	258	40	8	28	2	78
April	180	92	272	45	2	19	1	67
May	205	70	275	60	1	25	1	87
June	188	41	229	33	2	29	.....	64
July	165	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	648	.....	311	32	195	6	544

RECAPITULATION.

ORIGINAL APPEALS.

Appeals pending July 1, 1890	4,850
Appeals filed from July 1, 1890, to June 30, 1891.....	3,272
Total	8,122
Appeals wherein Pension Office was sustained.....	2,243
Appeals wherein Pension Office was reversed.....	339
Appeals reconsidered by Pension Office pending appeal.....	369
Appeals dismissed.....	141
Total	3,092
Appeals pending July 1, 1891.....	5,030

MOTIONS FOR RECONSIDERATION.

Motions for reconsideration pending July 1, 1890.....	511
Motions for reconsideration filed from July 1, 1890, to June 30, 1891.....	176
Total	687
Motions for reconsideration overruled.....	310
Motions for reconsideration sustained.....	38
Motions for reconsideration allowed by the Pension Office.....	11
Motions for reconsideration dismissed.....	11
Total	370
Motions for reconsideration pending July 1, 1891.....	317

FEE APPEALS.

Fee appeals pending July 1, 1890	61
Fee appeals filed from July 1, 1890, to June 30, 1891.....	648
Total	709
Fee appeals wherein Pension Office was sustained.....	311
Fee appeals wherein Pension Office was reversed.....	32
Fee appeals reconsidered by Pension Office pending appeal.....	195
Fee appeals dismissed	6
Total	544
Fee appeals pending July 1, 1891.....	165

CORRESPONDENCE.

Letters referred to the Commissioner of Pensions.....	10,491
Letters sent.....	6,421

SUPPLEMENTAL STATEMENT.

In addition to the foregoing tables embracing the work of the last fiscal year, I have the honor to present the following statement showing the work done in the period which has elapsed between July 1, 1891, and October 1, 1891:

TABLE IV.

ORIGINAL APPEALS.

Statement showing disposition of pension claims from July 1, 1891, to October 1, 1891.

	Appeals pending on the first of the month.	Appeals filed during the month.	Total.	Action of the Pension Office sustained.	Action of the Pension Office reversed.	Reconsidered by the Pension Office pending appeal.	Appeals dismissed.	Total appeals disposed of.
1891.								
July	5,030	378	5,408	298	58	65	17	438
August	4,970	180	5,150	157	28	48	11	244
September	4,906	394	5,300	285	38	86	31	440
October.....	4,860							
Total		952		740	124	199	59	1,122

TABLE V.

MOTIONS FOR RECONSIDERATION.

Statement showing disposition of motions for reconsideration from July 1, 1891, to October 1, 1891.

	Motions for reconsideration pending on the first of the month.	Motions for reconsideration filed during the month.	Total.	Motions for reconsideration overruled.	Motions for reconsideration sustained.	Reconsidered and allowed by the Commissioner of Pensions.	Motions for reconsideration dismissed.	Total motions for reconsideration disposed of.	Letters referred to the Commissioner of Pensions.	Letters sent.
1891.										
July	317	7	324	26	.....	1	.....	27	1, 245	615
August	297	.....	297	34	5	7	1	47	594	173
September	250	30	280	12	2	.....	.....	14	1, 202	629
October	266	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	37	.....	72	7	8	1	88	3, 041	1, 417

TABLE VI.

FEE APPEALS.

Statement showing disposition of appeals relating to attorneyship and fees from July 1, 1891, to October 1, 1891.

	Fee appeals pending on the first day of the month.	Fee appeals filed during the month.	Total.	Action of the Pension Office sustained.	Action of the Pension Office reversed.	Reconsidered by the Pension Office pending appeal.	Fee appeals dismissed.	Total fee appeals disposed of during the month.
1891.								
July	165	75	240	46	5	29	1	81
August	159	11	170	58	5	6	1	70
September	100	55	155	43	11	4	2	60
October	95	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	141	.....	147	21	39	4	211

RECAPITULATION.

ORIGINAL APPEALS.

Appeals pending July 1, 1891	5, 030
Appeals filed from July 1, 1891, to October 1, 1891	952
Total	5, 982
Appeals wherein Pension Office was sustained	740
Appeals wherein Pension Office was reversed	124
Appeals reconsidered by Pension Office pending appeal	199
Appeals dismissed	59
Total	1, 122
Appeals pending October 1, 1891	4, 860

MOTIONS FOR RECONSIDERATION.

Motions for reconsideration pending July 1, 1891	317
Motions for reconsideration filed from July 1, 1891, to October 1, 1891	37
Total	354
Motions for reconsideration overruled	72
Motions for reconsideration sustained	7
Motions for reconsideration allowed by the Pension Office	8
Motions for reconsideration dismissed	1
Total	88
Motions for reconsideration pending October 1, 1891	266

FEE APPEALS.

Fee appeals pending July 1, 1891.....	165
Fee appeals filed from July 1, 1891, to October 1, 1891.....	141
Total.....	306
Fee appeals wherein Pension Office was sustained.....	147
Fee appeals wherein Pension Office was reversed.....	21
Fee appeals reconsidered by Pension Office pending appeal.....	39
Fee appeals dismissed.....	4
Total.....	211
Fee appeals pending October 1, 1891.....	95

CORRESPONDENCE.

Letters referred to the Commissioner of Pensions.....	3,041
Letters sent.....	1,417

THE WORK.

The work indicated by the foregoing *tabulated statements* has been done with commendable thoroughness. A noteworthy fact appears in the comparatively few instances wherein the action of the Commissioner of Pensions has been overruled in proportion to the whole number of claims considered, showing, as it does, the care with which the rulings of the Department are observed by the Bureau of Pensions. The appeals sustained are in cases, chiefly, wherein the evidence was more or less complicated and doubtful, or in which arose certain questions of law the solution of which required an expression of opinion from this office. There is thus apparent a desirable degree of concurrence between the Commissioner and the head of the Department with reference alike to rules of evidence and to principles of law that should govern the decision of pension claims. In the progress of this work my attention has been drawn to several

DEFECTS IN PENSION LEGISLATION,

the importance of which should entitle them to the consideration of Congress; and, with that object in view, I respectfully submit them to you. For instance, from an early date in the history of our pension system, there have prevailed, under different administrations, conflicting opinions as to the power to enforce the reimbursements of money paid in *excess* for pensions in conformity with either inaccurate or illegal certificates issued through mistakes either of fact or of law in the adjudication of claims by the Bureau of Pensions; and consequently, in the absence of a clear legal provision on the subject, the Government, having no authority to plead a past overpayment as an offset to current payments of pension, has been compelled to submit to serious losses of money which, having been once improperly paid either to claimants or to pensioners, were irrecoverable under any established rule of departmental practice. A memorable illustration of this fact was given in a large number of applications for *re-rating* and for *increase* that were filed in the Bureau of Pensions during the years 1887, 1888, and 1889, upon which considerable sums of money were paid improperly to cer-

tain pensioners by the authority of the Commissioner, in violation of both law and practice, but without either the knowledge or the consent of the Secretary—losses for which there should have been a

REIMBURSEMENT

of the Treasury, under the same law in pursuance of which the pension itself was granted. The means employed, whether by claimants or by attorneys, to procure these excessive allowances will not be here discussed; but the evil itself confronts the Department, and the need for a legal remedy is emphasized not only by considerations of justice to the great mass of honest pensioners, but by the proper requirements of the pension system. It is equivalent in its effect to a discrimination in favor of unlawful claims and claimants. In order to supply a remedy, I respectfully recommend that Congress be requested to enact a law that shall expressly authorize the Department to treat all improper, illegal, and *excessive* payments of pension, whether caused by *fraud* or by *mistake*, as *prepayments* to be charged against the current pension, with a view to readjusting or equalizing current pension payments within the discretion of the Secretary. Such an enactment would afford a prompt and, I believe, an effective remedy for the evil under consideration, at the same time averting all occasion for departmental controversy or for litigation with pensioners. It would confer upon the Department the power to correct its own errors by a just and easy process, thereby preserving the integrity of the law and maintaining the fairness with which it should be enforced.

WIDOWS' DISABILITY PENSION.

The first clause of section 3 in the act of June 27, 1890, provides that—

If any officer or enlisted man who served ninety days or more in the Army or Navy of the United States during the late War of the Rebellion, and who was honorably discharged, has died or shall hereafter die, leaving a widow without other means of support than her daily labor, or minor children under the age of sixteen years, such widow shall, upon due proof of her husband's death, without proving his death to be the result of his Army service, be placed on the pension roll from the date of the application therefor under this act, at the rate of eight dollars per month during her widowhood, and shall also be paid two dollars per month for each child of such officer or enlisted man under sixteen years of age, etc.

In the list of applications for widows' pension under this section of the act of June 27, 1890, my attention has been drawn to a number of cases wherein, according to the law, the claimant has been necessarily denied pension because the soldier, on whose death the claim was based, although serving "ninety days or more in the Army or Navy," as shown by the evidence, had not been "honorably discharged" prior to death, but had died while, for instance, on individual furlough and absent from the technical line of duty in the service. It seems that both the spirit and the object of the act of June 27, 1890, would be emphasized and

subservied by an amendment of this section that would be applicable to such meritorious cases of dependence and distress; and I respectfully urge that such an amendment be adopted by Congress. In this connection, I respectfully renew a suggestion, which I had the honor to submit in my report for October 1, 1890, wherein, referring to the *proviso* in the third section of the act of June 27, 1890, which provides

PENSION FOR MINOR CHILDREN

who are "insane, idiotic, or otherwise permanently helpless," I said :

The clause properly provides that the pension granted to such children shall continue during the life of said child, or during the period of such disability; but, under the law as it stands, in order that such children shall be pensioned during life, or during the period of such disability, it must appear that the father or the mother died *prior to the expiration* of the limit affixed to the pensionable minority period, viz, *sixteen year of age*; and, therefore, if, when the parent dies, the insane, or idiotic, or otherwise permanently helpless child is *more* than instead of *under* sixteen years of age, a minor's pension can not be allowed. In view of this fact I respectfully suggest that the act should be so amended as to admit all insane, idiotic, or otherwise permanently helpless children to minors' pension, regardless of the date of the parent's death or remarriage, at any period *prior to and including the age of twenty-one years*.

The amendment here suggested would be in keeping with the beneficent purposes of the act of June 27, 1890. It would reach a considerable number of cases for which the pension system has thus far made no provision, and it would necessitate only a small additional expenditure of money per annum. The experiences of the past year impel me now to further suggest that, in cases of "insane, idiotic, or otherwise helpless children" of deceased pensioners, the pensionable *age-limit* be abolished so as to admit such children at any date to the pension roll. An evil of serious magnitude has resulted from the practice of pensioning a certain class of

INSANE INMATES OF THE GOVERNMENT HOSPITAL

located in the District of Columbia. This class consists of persons who, having been admitted to the hospital for care and treatment at the expense of the Government, but having neither wife nor child nor living parent dependent on them for support, and having no other relative near enough to occupy on their account a pensionable status, are nevertheless pensioned for insanity, the pension money being paid quarterly to a guardian. My attention has been called to a number of instances wherein such persons remained in the hospital many years prior to the appointment of a guardian, and then said appointment would appear to have been instigated by either some friend or remote relative of the person with a view to filing an application and obtaining the payment of large *arrears* of pension on account of the alleged disability. Thus, without either his knowledge or consent, the inmate of the hospital, having no dependent relative legally entitled to pension is made the unwitting subject or means of a speculative claim, the ben-

efits of which he can never enjoy and the use of which he can never control. The inmate at last dies, leaving in the hands of the guardian a large sum of pension money, constituting a personal estate, which goes perhaps to some heir of the decedent for whom the pension system was not intended either directly or indirectly to provide. The extent to which has been carried this method of obtaining money is an abuse that should not be longer tolerated in the name of pension.

You are aware that the Government has made the amplest and the best provision in the aforesaid hospital for the care and treatment of its inmates—the indigent class receiving such care and treatment free of charge, while the charges made against those who are *not* indigent are merely nominal. In view of these facts I respectfully but urgently recommend that the class of inmates to which reference has now been made be declared by Congressional enactment to be *nonpensionable for the period during which they receive the care and treatment of the hospital*, the only pensionable class being restricted to those who have wives or children or other pensionably dependent relatives, to whom the inmate's guardian shall pay, under the orders of a court having competent jurisdiction, all the current pension in excess of the nominal charges for care and treatment of the pensioner as shall be shown in the accounts rendered by the hospital's superintendent. A moment's reflection makes it obvious that the pension system was never designed as the means of procuring money for the ultimate maintenance or enjoyment of persons who have no direct, nor immediate, nor legitimate title to its benefactions, but who intentionally pervert the apparent needs of the insane soldier into an opportunity for speculating in pensions. The enactment of such a law as I have here suggested will aid in protecting the Treasury against unworthy claimants and, to that extent, confine the annual appropriation for pensions to those who are fairly entitled to its benefits. The Government can afford to generously care for its indigent insane veterans, but it should not be required to enrich for a mere pretext the nonpensionable "heirs" of the demented soldier.

PERIODICAL AID AND ATTENDANCE.

Reviewing the experiences of the past year in adjudicating pension appeals, I am impressed with the value of a recommendation that was submitted by the honorable Commissioner of Pensions in his annual report for 1890 favoring a just provision of law "to create a higher rate than \$30 per month" for cases wherein claimants are shown to be "incapacitated for performing manual labor and who *periodically* require the aid and attendance of other persons, but who are unable to establish the fact of the requirement of *constant* aid and attendance." Since the passage of the act of March 4, 1890, amending the acts of June 18, 1874, and June 16, 1880, and increasing the rate for a disability requiring the "constant aid and attendance of another person" from \$50 to \$72 per month, there has been no *intermediate* rate between \$30 as provided

by the act of March 3, 1883, for total incapacity for manual labor, and that of \$72 per month under the aforesaid act of March 4, 1890. The wide gap existing between these two rates leaves a worthy though not numerous class of claimants without adequate provision; and I recommend that such provision be promptly made for the sake of justice and equality before the law, fixing the intermediate rate at \$50 per month for the cases described.

THE ACT OF MARCH 3, 1877.

Among the inequalities that appear here and there in pension legislation is a provision contained in the act of Congress approved March 3, 1877, amending the pension laws so as to remove the legal disability of those who, having participated in the rebellion, have, since its termination, enlisted in *the Army* of the United States and become thereby disabled. The act provides that—

The law prohibiting the payment of any money on account of pensions to any person or to the widow, children, or heirs of any deceased person, who, in any manner, engaged in or aided or abetted the late rebellion, shall not be construed to apply to such persons as *afterward* voluntarily enlisted in *the Army* of the United States and who, while in such service, incurred disability from a wound or injury or disease contracted in the line of duty.

In the administration of this act it has been customarily held by the Department to be inapplicable to *Navy* cases, inasmuch as it contains no express provision for enlistments in the *Navy*. The opinion is entertained that, with reference to any person who, in any manner, engaged in or aided or abetted the late rebellion, it was, in fact, intended that the act should apply to all “such persons as afterward voluntarily enlisted in [*either the Navy or*] the *Army* of the United States, and who, while in such service, incurred disability from a wound or injury, or disease contracted in the line of duty;” and the absence of the words necessary to make the act applicable to *Navy* cases has been reasonably ascribed to an oversight in phraseology on part of Congress when formulating the act itself. Whether this opinion be correct or not, it is obvious that the act furnishes a technical ground of discrimination against the naval service and against disabilities incurred in and by reason of said service—a discrimination that is inconsistent with the object of the pension system and for which no sound reason has been ever given. It can not be justly held that disabilities incurred in the line of duty in the *Army* should be pensionable, but that similar disabilities, if incurred in the line of duty in the naval service, should *not* be pensionable. The grounds for pension are certainly applicable to both cases alike, and I respectfully recommend that the act of 1877 be so amended as to expressly remove the invidious discrimination and put all *Navy* and *Army* cases upon a footing of exact equality before the law. Justice to a number of patriotic men, to their wives and children, requires this to be done.

DECISIONS IN PENSION CLAIMS.

Since submitting to you my former report, the fourth volume of decisions in pension claims, embracing opinions rendered in selected cases, has been published in a substantial form, and it is being distributed by the superintendent of documents for the Department of the Interior at a nominal charge per copy. The high value of these volumes in establishing uniform and consistent departmental rulings governing the administration of the pension laws and correcting misinterpretations of the statutes is generally conceded, the rapidity with which the editions are sold indicating the acceptability of the rulings themselves. They furnish, also, the best evidence of the thoroughness with which appeals in pension cases are considered, showing the impartial and faithful endeavor which is made by the Board of Appeals to accurately construe the law and insure justice to every class of claimants.

The work thus done is fulfilling the beneficent purpose of the nation, expressed a century ago, when making the pledge that, "if any person, whether officer or soldier, belonging to the militia of any State and called into the service of the United States, be wounded or disabled while in actual service, he shall be taken care of and provided for at the public expense." The fidelity with which that pledge has been redeemed is indicated by the fact that, in compliance with the provisions of various pension laws, there were, on June 30, 1891, the names of 676,160 pensioners borne on the pension rolls, that number including 138,216 more pensioners than were carried on the same rolls at the end of the preceding fiscal year.

Respectfully,

CYRUS BUSSEY,
Assistant Secretary.

Hon. JOHN W. NOBLE.

REPORT

OF THE

SUPERINTENDENT OF CENSUS

FOR THE SIX MONTHS ENDING DECEMBER 31, 1890.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., December 31, 1890.

SIR: The rapidity with which the work of taking the Eleventh Census is being brought to a termination and the satisfactory progress made during the last six months of the year have justified the preparation of a special report relative to the operations of the office covering the portion of the year from July 1 to December 31, 1890. This period, as you know, has been by far the most active in census matters, and already the work is sufficiently advanced to admit of further reduction in the office force. The field work of the Eleventh Census is practically finished. Nearly all the supervisors and four-fifths of the enumerators have been paid. The special agents engaged in abstracting mortgages in every county in the country have completed their work, and the returns are in course of tabulation. A few special agents may be found here and there gathering the fag-ends of information relating to mines and mining, while there are a few districts on the Pacific coast which have not yet been covered by the special agents collecting fish statistics. The collection of the statistics of manufactures for cities and towns withdrawn from the enumerators was not begun until after the count of the population. In some of the larger cities this work is in progress, but it has been completed in nearly all the smaller towns. The returns thus far received justify the conclusion that the statistics showing our industrial progress will be more complete and satisfactory in every way than I had a right to expect.

In short, the work of every division has been held strictly within the scope of the plan which I had the honor to lay before you in the spring of 1889, and which met with your official approval. Every attempt, no matter how tempting, on the part of special agents and experts to enlarge or add new inquiries has been promptly met with refusal, and I am looking forward to the completion of the census within two years from this date. It is hoped that the cost of the census of 1890 will not exceed the original appropriation made by Congress to defray the expenses of the Eleventh Census. The utmost care has been exercised in every branch of the work and the usual waste attending such an un-

dertaking reduced to a minimum. The working force of the office from the beginning has been of a high grade of efficiency, and deserves great credit for capacity, faithfulness, and industry.

THE COUNT OF THE PEOPLE.

I had the honor to transmit to you the official count of the population of the United States as finally determined November 26, which was as follows:

The United States.....	62,622,250	Missouri.....	2,679,184
Alabama.....	1,513,017	Montana.....	132,159
Alaska.....		Nebraska.....	1,058,910
Arizona.....	59,620	Nevada.....	45,761
Arkansas.....	1,128,179	New Hampshire.....	376,530
California.....	1,208,130	New Jersey.....	1,444,933
Colorado.....	412,198	New Mexico.....	153,593
Connecticut.....	746,258	New York.....	5,997,853
Delaware.....	168,493	North Carolina.....	1,617,947
District of Columbia.....	230,392	North Dakota.....	182,719
Florida.....	391,422	Ohio.....	3,672,316
Georgia.....	1,837,353	Oklahoma.....	61,834
Idaho.....	84,385	Oregon.....	313,767
Illinois.....	3,826,351	Pennsylvania.....	5,258,014
Indiana.....	2,192,404	Rhode Island.....	345,506
Indian Territory.....		South Carolina.....	1,151,149
Iowa.....	1,911,896	South Dakota.....	328,808
Kansas.....	1,427,096	Tennessee.....	1,767,518
Kentucky.....	1,858,635	Texas.....	2,235,523
Louisiana.....	1,118,587	Utah.....	207,905
Maine.....	661,086	Vermont.....	332,422
Maryland.....	1,042,390	Virginia.....	1,655,980
Massachusetts.....	2,238,943	Washington.....	349,390
Michigan.....	2,093,889	West Virginia.....	762,794
Minnesota.....	1,301,826	Wisconsin.....	1,686,880
Mississippi.....	1,289,600	Wyoming.....	60,705

Recognizing the fact that every month and every week that can be saved in the publication of census statistics adds appreciably to their value, no labor has been spared to complete the official count of the people at an earlier date than ever heretofore attained. While the rapid increase of population adds greatly to the work of taking the census, improved communication, division of labor, and more enlightened methods make it possible not only to secure greater accuracy than before, but to obtain results more speedily. For example, in 1850 the enumeration was begun June 1, but the first returns were not received until August 29 of that year, and the final returns (from California) were not received until February 17, 1852, exactly one year eight months and seventeen days after the commencement of the enumeration. As an illustration of the advance in means of communication between the States since that time, the fact may be mentioned that on the 21st of August, 1890, exactly two months and nineteen days after the date of commencement of enumeration, the official returns by counties and precincts of the State of Washington were telegraphed by this office to the governor for the use of the State legislature, then convening, for the purpose of apportioning representation in that body. By October 20 the population of all the Pacific States—California, Oregon, and Washington—had been announced.

No official statement appears in the population volume of the Eighth Census of the dates when returns were received. The enumeration for

1870 was nearly completed January 9, 1871, but not actually so until August 23 of that year, because the last schedules were not received from the enumerators until that time, more than a year after the commencement of the enumeration. The Tenth Census was practically completed March 4, 1881, the final official count following soon afterward. The last returns of the Eleventh Census received at this office were from the first supervisor's district of Florida, November 10. These returns were received by the supervisor October 21, a count of the schedules made by him, and the result telegraphed to the office on the same date. The delay in reaching this office was caused by the package being improperly addressed. The system adopted of registering and checking each package of returns has proved to be so complete and satisfactory, and the work of the Post Office Department has been so efficiently performed, that the schedules were sent by fifty thousand enumerators from as many districts, covering the entire country, to the 175 supervisors, and from the supervisors to the Census Office at Washington, with the loss of but a single sub-district. This package (No. 123*a*, second supervisor's district, Kentucky) was mailed August 9, and was said to have reached Washington August 13, but there is no record of such package ever having been received.

The final delay of a week in announcing the population was caused by complications in the second supervisor's district of Missouri and the third supervisor's district of Maryland, arising from enumerators' districts being improperly numbered.

The first announcement of population was made June 28, being the population of the District of Columbia, and was followed by the announcement, July 18, of the population of the city of New York, constituting the whole of the first supervisor's district of the State of New York. On August 6, the first district of Pennsylvania, comprising the city of Philadelphia, was given to the public. During the month of August the first count of the States of Delaware, Idaho, Rhode Island, and Washington was announced; during September, Colorado, Connecticut, Maine, Massachusetts, Montana, Nevada, Vermont, and the Territories of Arizona and Utah; during October, Alabama, Arkansas, California, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia, Wisconsin, Wyoming, and the Territories of New Mexico and Oklahoma.

The work of tabulating the population of the minor civil divisions of the country is well under way, and a bulletin containing the population of all cities and towns of 8,000 and over will soon be ready for the printer. It will be followed shortly by a third bulletin, giving the population for each State by counties, and subsequently by bulletins presenting the population in detail for all civil divisions of whatever size. In addition, bulletins will be issued showing the number of families and dwelling houses, persons to a dwelling house, persons to a family, etc., and as regards area, density of population, and other facts showing the progress and movements of population. The work of ascertaining the number of persons returned on the enumerators' schedules as owning and renting their homes and farms, and whether those owned are free from debt or incumbered by mortgages, together with a separation of the white and colored population of the South, has been begun, and the result will be given to the public prior to the commencement of work on the final tabulations.

The population of the United States on June 1, 1890, as shown by the final count of persons and families, exclusive of white persons in Indian Territory, Indians on reservations, and of Alaska, was 62,622,250. Including these persons the population will probably exceed 63,000,000. In 1880 the population was 50,155,783. The absolute increase of the population in the ten years intervening was 12,466,467, and the percentage of increase was 24.86. In 1870 the population was stated as 38,558,371. According to these figures the absolute increase in the decade between 1870 and 1880 was 11,597,412 and the percentage of increase was 30.08.

THE APPORTIONMENT OF REPRESENTATIVES IN CONGRESS.

I have also the honor to call your attention to the fact that the apportionment of Representatives in Congress was not delayed a moment by the failure of the Census Office to have the official returns of the population ready on the convening of Congress. The passage by the House of Representatives of the apportionment bill, for the first time in the history of the country, the same year the census was taken makes it worth while briefly to review the apportionment legislation. Numerous inquiries have been addressed to the Census Office on the subject, and I take this method of answering them.

The following table shows what may be termed the constitutional population of the United States, the present number of Representatives, and the number of Representatives provided for by the act which passed the House of Representatives December 17, 1890:

States.	Constitutional population.	Present number of members.	Number as proposed.	States.	Constitutional population.	Present number of members.	Number as proposed.
Total	61,908,906	332	356	Missouri.....	2,679,184	14	15
Alabama.....	1,513,017	8	9	Montana.....	132,159	1	1
Arkansas.....	1,128,179	5	6	Nebraska.....	1,058,910	3	6
California.....	1,208,130	6	7	Nevada.....	45,761	1	1
Colorado.....	412,198	1	2	New Hampshire.....	376,530	2	2
Connecticut.....	746,258	4	4	New Jersey.....	1,444,933	7	8
Delaware.....	168,493	1	1	New York.....	5,997,853	34	34
Florida.....	391,422	2	2	North Carolina.....	1,617,947	9	9
Georgia.....	1,837,353	10	11	North Dakota.....	182,719	1	1
Idaho.....	84,385	1	1	Ohio.....	3,672,316	21	21
Illinois.....	3,826,351	20	22	Oregon.....	313,767	1	2
Indiana.....	2,192,404	13	13	Pennsylvania.....	5,258,014	28	30
Iowa.....	1,911,896	11	11	Rhode Island.....	345,506	2	2
Kansas.....	1,427,096	7	8	South Carolina.....	1,151,149	7	7
Kentucky.....	1,858,635	11	11	South Dakota.....	328,808	2	2
Louisiana.....	1,118,587	6	6	Tennessee.....	1,767,518	10	10
Maine.....	661,086	4	4	Texas.....	2,235,523	11	13
Maryland.....	1,042,390	6	6	Vermont.....	332,422	2	2
Massachusetts.....	2,238,943	12	13	Virginia.....	1,655,980	10	10
Michigan.....	2,093,889	11	12	Washington.....	349,390	1	2
Minnesota.....	1,301,826	5	7	West Virginia.....	762,794	4	4
Mississippi.....	1,289,600	7	7	Wisconsin.....	1,686,880	9	10
				Wyoming.....	60,705	1	1

The apportionment of Representatives in Congress, according to the enumeration of the First, Second, Third, Fourth, Fifth, Sixth, Ninth, and Tenth Censuses, was made by Congress. At the first six apportionments Congress set forth the ratio of population for each member allowed, and also at each apportionment fixed the total number of members of the House.

The law for the taking of the Seventh Census was intended to be permanent (act of May 23, 1850, 9 Stat., 428). It presented a rule of apportionment, fixed the number of members of the House at 233, and directed the Secretary of the Interior to make the apportionment to each State thereafter, which was done for that and the next apportionment.

The apportionment under the Eighth Census was made under this law, but Congress, on March 4, 1862, fixed the total number of members at 241, and the Secretary of the Interior apportioned the quotas to the States. The ninth and tenth apportionments were made by Congress; hence it may be assumed that the power conferred on the Secretary of the Interior by the act of May 23, 1850, has been repealed by implication. Heretofore all apportionments have been made at the long sessions of Congresses, being the second session after each census year, but early enough for the election of Representatives to the next ensuing Congress. If the apportionment bill, which has passed the House of Representatives, should pass the Senate and become a law, the apportionment under the Eleventh Census would be about two years earlier in time than any heretofore made.

These are the facts regarding previous censuses:

The Constitution, article I, section 2, made the first apportionment, fixing the number of Representatives for each State on the ratio of one representative for every 30,000 souls—in all 65 Representatives.

APPORTIONMENT ACCORDING TO CENSUSES.

FIRST CENSUS.

The act of April 14, 1792 (1 Stat., 253), on the ratio of one member for 33,000 souls, fixed the number of Representatives for each State (in all 105) to take effect after March 3, 1793.

SECOND CENSUS.

The act of January 14, 1802 (2 Stat., 128), on the ratio of one member for 33,000 souls, fixed the number of Representatives for each State (in all 141) to take effect after March 3, 1803.

THIRD CENSUS.

The act of December 21, 1811 (2 Stat., 669), on the ratio of one member for 35,000 souls, fixed the number of Representatives for each State (181 in all) to take effect after March 3, 1813.

FOURTH CENSUS.

The act of March 7, 1822 (3 Stat., 651), on the ratio of one member for 40,000 souls, fixed the number of Representatives for each State (in all 213) to take effect after March 3, 1823.

FIFTH CENSUS.

The act of May 22, 1832 (4 Stat., 516), on the ratio of one Representative for 47,700 souls, fixed the number of Representatives for each State (240 in all) to take effect after March 3, 1833.

SIXTH CENSUS.

The act of June 25, 1842 (5 Stat., 491), on the ratio of one Representative for each 70,680 souls, fixed the number of Representatives for each State (223 in all) to take effect after March 3, 1843, and the act allowed an additional Representative to each such State as had a population of a fraction greater than a moiety of said ratio. This act also required that the Representatives be elected in districts composed of contiguous territory, and interesting debates are reported in the "Globe" on this apportionment.

All the foregoing six apportionments were made by Congress. The following two, to wit, the seventh and eighth, were made by the Secretary of the Interior under the provisions of the census act of May 23, 1850 (9 Stat., 428-432).

SEVENTH CENSUS.

The Secretary of the Interior, under the provisions of the act of May 23, 1850, made the apportionment of Representatives for each State, the act having limited the number of Representatives to 233 after March 3, 1853, the date said apportionment took effect. That act, sections 25 and 26, prescribed the mode of ascertaining the ratio of population.

EIGHTH CENSUS.

Under the provisions of the same act of May 23, 1850, the Secretary of the Interior made the apportionment, the act of March 4, 1862 (12 Stat., 353), having limited the number of Representatives to 241 after March 3, 1863, the date said apportionment took effect.

NINTH CENSUS.

The act of February 2, 1872 (17 Stat., 28), did not set forth a ratio of population for a Representative, but it fixed the membership of the House after March 3, 1873, at 283 members, and apportioned them to the States.

TENTH CENSUS.

The act of February 25, 1882 (22 Stat., 5), did not set forth a ratio of population for a Representative, but it fixed the membership of the House after March 3, 1883, at 325 members, and apportioned them among the States. This act provides for members from new States, and as to how elections shall be held at large for States cut down in number of Representatives, or at large for the members a State may have gained by the apportionment.

COMPLAINTS AND RE-ENUMERATIONS.

Referring to the complaints which are periodically made against the results of the Federal census, General Francis A. Walker remarked twenty years ago that "the real faults of the census are generally those that are not complained of. The individuals and classes of citizens making the loudest complaints are commonly not those with respect to whom the census commits its errors. The cities and sections that are most noisy in their dissatisfaction are commonly those which are best taken, and for that very reason. It is in regions where apathy prevails in regard to the results of the enumeration, and it is in respect to individuals and families that neither write for the newspapers nor read them, that the greater part of the omissions of the census occur."

What was true in 1870 in Philadelphia and New York, which claimed from 150,000 to 200,000 more population than was returned by the census, is equally true to-day. In the face of an actual count of the people, vague and unsupported complaints against the census from rival cities with exaggerated ideas of their population should have but little weight. Nevertheless the Census Office has in no case, however unreasonable, refused a hearing, and, as will be seen from the facts herewith given, when reasonable grounds for questioning the results have been presented, it has either carefully examined the defective work or gone over it a second time.

So long as the decennial census of the United States has to be taken under the social conditions that have prevailed during the last quarter of a century, conditions involving great movements of population, the sudden uprising and rapid growth of numerous communities, and a perpetual struggle for commercial and political supremacy between

different sections of our common country, so long will a census without such complaints be an impossibility. As in former censuses, so in respect to the present census. Whatever local disappointments the Eleventh Census may have temporarily created have been due not so much to the defective work of the enumerators as to their failure to find the total population expected, or to the superiority, as respects numbers, attributed to some rival community. Of the nearly fifty thousand enumerators who have performed the exacting duties required of them under those varied conditions which exist in a country like the United States, only an infinitesimal per cent have had their work so discredited as either to necessitate its being done again by others, or even to call for the adoption of any special measure for completing or otherwise amending it. In several cases a careful re-enumeration of the population has but confirmed and vindicated the work of the original enumerators. Every re-enumeration or investigation has been based either upon evidences of defective work on the part of the original enumerators properly presented by the local authorities or other responsible persons, upon evidences of a fraudulent enumeration discovered by the experts in this office in their examination of the schedules, or, as in two cases, on account of the loss, or supposed loss, by supervisors or enumerators of a portion of the enumerators' returns. No entire State or Territory has been re-enumerated, and in but one county out of the 2,782 comprised in the various States and Territories of the Union has an entire recount been found necessary or been requested. Multnomah County, Oregon, was re-enumerated for the reason that six-sevenths of its population lies within the limits of the cities of Portland, East Portland, and Albina, where the work of some of the enumerators was believed to be seriously defective, strong representations on the subject having been made both by municipal and commercial bodies and by the Oregon delegation in Congress. The re-enumeration of this county was begun August 25 and completed September 29, and the total population was reported as 75,257, as against 61,773 at the enumeration in June. This would appear on the face of it seriously to discredit the work of the original enumerators, but the schedules of the re-enumeration themselves contained so many evidences of dishonest work, and there were also so many suspicious circumstances connected with the re-enumeration, as seriously to impeach its integrity. The ordering of a third enumeration was for a time seriously entertained, and the idea was abandoned only from a realization of the difficulty of making in the middle of October an enumeration that should fairly represent the population at the beginning of June of a city that contained so large a floating population as is nearly always to be found at the commercial metropolis of Oregon, as well as of the further difficulty of inducing a community cheerfully to furnish the necessary census information for a third time in a period of four months.

Concurrently with the re-enumeration in Multnomah County, Oregon, a recount was also made at Salem, the capital of the State. Here 10,422 were reported, as against 7,294 found by the original enumerators; but, as in the case of Multnomah County, the work was somewhat seriously discredited, it being very positively asserted that a large number of hop-pickers, temporarily visiting the city, had been included in the re-enumeration, and that, in their eagerness to swell the total, the enumerators had not observed the proper boundaries.

The result of these recounts in Oregon led to a demand for a re-enumeration of the entire State, but no evidence tending to impeach the work

of the enumerators outside of Multnomah County and Salem being presented, the demand was refused.

At Columbus, Georgia, a recount in August added 1,138 to the original number enumerated, increasing the census population of the city to 18,650. This recount was the result of an investigation made by a special agent at the request of the mayor and the president of the board of trade, who were supported in their petition by Representative Grimes and Mr. W. H. Johnson, collector of internal revenue.

Dissatisfaction at Helena, Montana, was brought to the attention of the Census Office by a petition from the prominent bankers and merchants of the city, and by the honorable Senators from Montana, who presented a list of persons alleged to be citizens of Helena, and which exceeded by several thousand the number of persons reported by the federal enumerators. Helena being one of the most famous mining cities in the country, and always containing a large transient population, it excited no surprise when the re-enumeration of that city gave it a population of 13,797, as against 11,394 at the June enumeration, especially when it was found that the population of a considerable territory recently annexed to the city had been omitted from the original figures.

A similar misconception as to the boundaries of his district on the part of the enumerator at Tarrytown, New York, led to serious omissions in the enumeration of that place. The supervisor for the district suggested that the difficulty might be remedied by a thorough revision of the work, but, in view of the small population of the city, the Census Office was of opinion that an entire re-enumeration would occupy less time and be in every way more satisfactory than a revision. Instructions were accordingly given on August 14 for a re-enumeration, which resulted in 3,559 people being reported, as against 2,130 at the original enumeration.

On July 26 Representative J. H. Rogers, of Arkansas, referred to this office a telegram received by him from the mayor of Fort Smith, giving the result of a municipal census just completed as 12,386, or largely in excess of the federal enumeration. A special agent having visited the city and investigated the alleged irregularities, the supervisor was on August 4 directed to make a re-enumeration. The new returns showed a population of 11,291, which was 2,537 more than were found by the original enumerators, but 1,095 fewer than the alleged result of the municipal census. No fewer than 600 omissions were chargeable to a single enumerator, who appears to have been utterly incompetent.

On July 17 the mayor of Schenectady, New York, made representations to the Superintendent of Census that led to the supervisor being instructed to proceed at once to that city and investigate the causes of the dissatisfaction said to exist. Serious omissions appearing to have been made in the enumeration of the fifth ward, a re-enumeration of that ward was ordered, with the result of adding 1,581 people to the schedules.

On the receipt on September 24 of a letter from the mayor of Iowa City, Iowa, and on representations from Senator Allison and Representative Hayes, the supervisor of census for that district was instructed to investigate the complaints made as to the errors in the work of enumeration of Iowa City. A comparison with the schedules of 1880, together with official statements as to the number of voters and the number of school children, and the declaration of prominent citizens that they and their families had been omitted in the enumeration, fully prepared this office for the recommendation of the supervisor that a re-

enumeration should be ordered. That step was therefore at once determined upon, and the order that was made was promptly executed by the supervisor. The number of persons found at such re-enumeration was 6,884, as compared with 5,628, reported by the original enumerators.

On the representations of the mayor and postmaster of Winchester, Virginia, supported by Senator Daniel, and after the examination of a municipal census list promptly placed at the service of this office by the mayor and city council, a re-enumeration of the first and second wards of Winchester was ordered, and the names of 238 persons were added to the schedules, thus increasing the population of the city to 5,195.

A re-enumeration of Washburn, Wisconsin, was rendered necessary by the fact that the original enumerators, whose districts comprised that city with certain outlying territory, had entirely disregarded the instructions given them, had redistricted their territory to suit themselves, and had not paid proper regard to the boundaries of the city. On September 3 a re-enumeration was ordered, and 3,699 inhabitants were returned, as against 3,227 reported by the enumerators in June.

The geographical relation and commercial rivalry existing between Tacoma and Seattle, the Saint Paul and Minneapolis of the Pacific coast, induced this office to accede to requests for a re-enumeration of two districts in the former and three in the latter city before the general enumeration was completed. In each case a larger showing was made as the result of the re-enumeration than appeared at the original count.

The Albany (New York) "Argus" having, in an editorial article on August 20, intimated its belief, and presented collateral evidence in support of such belief, that in two districts of the Sixth ward and one district of the Fourteenth ward of the city of Albany there had been serious omissions on the part of the Federal enumerators, a special agent at once proceeded to Albany, consulted with the editors of the "Argus," and made a thorough investigation of the complaints, finally causing a recount of the suspected districts, the result of which was to prove the substantial accuracy of the original enumeration in two of the districts, while in the third, a district largely composed of a floating population, there was an increase of about 260 persons.

On July 10 Representative Belden telegraphed the office, requesting that the citizens' committee of Syracuse, New York, be allowed to inspect the census schedules for that city. That being contrary to law, Mr. Howard G. White, editor of the Syracuse "Journal," was designated by the committee and appointed a special agent of census for the purpose of examining the work of the enumerators. The result of such examination was the transmission to this office of certain supplementary lists of names, which added to the Federal schedules 510 persons.

The city of Saint Louis affords a conspicuous and noteworthy illustration of the facility with which a defective enumeration can be remedied when the municipal authorities co-operate heartily with the Census Office. Early in July an influential delegation from the city council and Mercantile Club of Saint Louis, in company with Representatives Frank and Kinsey, visited the Census Office, and placed unreservedly at its service a list of about 30,000 inhabitants of Saint Louis believed to have been omitted by the Federal enumerators, which list had been prepared by the agency of the city police. In view of this apparent serious discrepancy, a prominent citizen of Saint Louis was at once appointed a special agent of census and instructed to co-operate with the supervisor in conducting a special canvass for the verification of such of the 30,000 names as were not to be found in the Federal schedules. This work was speedily performed to the entire

satisfaction both of the Census Office and of the citizens of Saint Louis, 12,250 additional names being thus secured. While the original enumerators, or some of them, were undoubtedly remiss in their duty, it must not be forgotten that, even in so short a period as six weeks, there are many changes in the population of so large a city as Saint Louis, and that the number of additional names secured can not be regarded as an infallible criterion of the accuracy of the original enumeration.

A remarkable vindication of the June enumeration was afforded at Kansas City, where, at the urgent solicitation of the Commercial Club and Clearing-House Association, a recount was ordered in twenty-four enumeration districts alleged to show less than one-third of the estimated population. The re-enumeration which thereupon took place was made under the most favorable conditions for a complete and accurate count, and the result showed a falling off of about 1,200 persons from the original count, upon which the Commercial Club made the request that the original enumeration might be allowed to stand.

A police census, taken at Cleveland, Ohio, early in July, and believed to have included many persons not then and there entitled to enumeration, showed about 7,000 names, or 2.6 per cent, in excess of the number taken by the regular enumerators. A comparison of the police lists with those of the Federal enumerators, name for name, was intended to be made in this office, but it was found to be utterly impracticable on account of the manner in which the police census had been taken and the impossibility of identifying the persons supposed to have been enumerated.

A police census was also taken at Des Moines, Iowa, but upon examination at this office it proved to be inferior to the work of the Federal enumerators, and the laborious task of comparing the two sets of schedules was not undertaken.

From the city of Dubuque, Iowa, the office received a long list of persons supposed to have been omitted by the Federal enumerators, but upon examination only 211 names proved to have been overlooked. These were, of course, added to the schedules. It is worthy of note that the mayor of that city stated that 5,000 persons had been omitted in the enumeration. This statement, like many others of a similar character, was based entirely upon the disappointment that ensued when the city was found to contain a smaller population than it had been claiming.

At Vicksburg, Mississippi, a municipal census was taken shortly after the Federal enumeration, and the request was made through Representative Catchings, and also through the supervisor and a special agent who visited the city, that such local enumeration might be substituted for the Federal count, or the additional names found at the municipal enumeration be added to the Federal schedules. The former suggestion being entirely impracticable, even aside from its illegality, could not for a moment be entertained, but a comparison would have been made between the two lists had it not been for the virtual admission of the local authorities that any satisfactory verification of names would be impossible on account of the large number of persons who had left the city. This statement gave credence to various reports which reached the Census Office that in the municipal enumeration large numbers of Mississippi River stevedores and other laborers had been included. A special enumerator had, however, at an early stage of the correspondence, been appointed to look up omissions, and through his instrumentality a number of names were added to the schedules, but only, however,

a small proportion of those claimed by the citizens' committee, in a great majority of cases erroneously, as entitled to enumeration.

Special enumerators were appointed in several other cities to revise the work of enumeration, notably in Richmond (Virginia), Little Rock (Arkansas), and Memphis (Tennessee). In all these cases the local authorities have expressed themselves as satisfied with the enumeration as it now stands.

On July 18 the official count of the population of the first supervisor's district of New York was made public and the result printed in the New York newspapers. No complaint in regard to omissions or of inaccurate work was made to this office until September 5, when a copy of resolutions passed by the board of aldermen was transmitted to the Census Office. These resolutions were not accompanied by any specific statement showing omissions, but were based entirely upon the fact that the official enumeration by the Federal authorities did not agree with the various estimates made of the population of New York City, based on the statistics of deaths furnished by the health department, statistics of the department of taxes and assessments, registration of voters, statistics of city travel, and the "daily observations" of New Yorkers. A careful examination was at once made, and in a letter transmitted to you, dated September 24, a full answer to this complaint or criticism of the census work was made by the Superintendent. Nothing further was heard from the board of aldermen and no other data whatever were supplied the Census Office until October 17, when a letter was received from Hon. Hugh J. Grant, mayor of New York City, demanding that the Federal authorities make an "accurate enumeration of all the inhabitants of the city of New York," on the ground that an enumeration taken by the police force of that city showed that there had been many inhabitants of the city of New York who were not included in the Federal census. Mayor Grant's application being accompanied by no proof or evidence that the persons enumerated by the police in October, and not included in the Federal enumeration in June, were entitled to enumeration in the city of New York during the period prescribed by law for the taking of the census, the demand could not be granted. On the following day the mayor was informed that the Census Office would be glad to accord the municipal authorities a hearing or to receive any proof he might have showing the inaccuracy of the Eleventh Census, but that unless proofs were immediately presented to show that such errors existed the Census Office would be obliged to adhere to the enumeration of June, made under the direction of Supervisor Murray, in accordance with the provisions of the act of March 1, 1889. This offer was not accepted by the mayor. On November 14 the Superintendent of Census addressed a letter to the honorable mayor of New York City, asking him to furnish for the use of the office a statement showing the population of that city by minor districts according to the police enumeration, for the purpose of comparing it with the Federal census, but no answer whatever has been received to this communication.

It now only remains to deal with the cases of fraudulent enumeration and those in which certain schedules were lost or supposed to have been lost by supervisors or enumerators. It is very significant that in the only two cities of over 100,000 inhabitants in which an entire re-enumeration has been found necessary such re-enumeration was called for, not because the enumeration fell short of public expectation, but because the enumerators had fraudulently padded their schedules, as at Minneapolis, or had made extensive duplications by the enumeration of persons on business premises and other nonresidential buildings, as at Saint

Paul. At Minneapolis an extensive and elaborate system of fraud was brought to light before the original enumeration was completed, and an investigation of the work by experts in this office proved the entire enumeration to have been honeycombed with fraud. A re-enumeration of both cities was ordered on July 26, and the result was to reduce the official returns in the case of Minneapolis from 188,119 to 164,738, and in that of Saint Paul from 142,541 to 133,301.

The discovery by this office of serious duplications in the work of the enumerator at Mauch Chunk, Pennsylvania, led to the re-enumeration of that city being ordered on August 20, when 2,069 persons were returned, as against 2,722 originally reported.

On August 25 the office received, through Representative Gibson, a petition from the board of trade, mayor, and citizens of Salisbury, Maryland, requesting that a comparison might be made between the Federal schedules and certain lists compiled by local officials. No evidence whatever was adduced to discredit the work of the Federal enumerator, but the supervisor having expressed the opinion that certain completed schedules had been lost a re-enumeration was ordered. The number of persons reported at such re-enumeration was 2,905, as against 2,777 reported by the enumerator in June. There having been in the meantime some accession of population, owing to the building of a railroad in the vicinity, the work of the original enumerator may be considered to have been completely vindicated by the result of the re-enumeration.

On July 13 Supervisor Sanchez, of the district of New Mexico, reported that the work of one of his enumerators not only contained many duplications, but also bore evidences of deliberate fraud and padding. An order for the re-enumeration of that district was at once issued, and, to the surprise of this office, the governor of the Territory, with other leading State officials, requested its suspension as unnecessary and unjust. Such communication could not but be considered as entitled to great weight, and for some days the order was temporarily suspended. On July 31, however, the request of the governor and other officials was withdrawn on the discovery that upward of two hundred schedules, belonging to the district in question, had either been destroyed or carried away by the supervisor's clerk. The order was thereupon made peremptory, and was duly carried into execution by Supervisor Sanchez. No comparison with the result of the original enumeration is in this case possible, in consequence of the loss of certain schedules as above stated.

In the case of Denver (Colorado), Milwaukee (Wisconsin), and many other cities, an extension of time was granted for the completion of the work of enumeration, and several thousand names were in that way added to the schedules. For several months some of the most experienced special agents of the office have been occupied almost exclusively in traveling from place to place investigating complaints and removing the grounds of dissatisfaction. In not a few cases, as at Charleston, South Carolina, such complaints proved to be entirely without foundation. At Nashville, Tennessee, a municipal census was taken under the direction of the compilers of the local directory, and the result came within 153 of the population as ascertained by the Federal enumerators. This remarkable tribute to the thoroughness and accuracy of the original work was alike gratifying to all concerned, and the Nashville Commercial Club expressed to the Superintendent of Census its high appreciation of the census work in that city.

An even more severe test of the census work was made in Louisiana

by the State authorities, who completed their State census on the day that the work of the Federal census began, with the following results:

United States census.....	1, 118, 587
State census	1, 115, 917

As will be seen, there was a variance of but 2,670 between the two enumerations, and that in favor of the Federal census.

SPECIAL WORK OF THE CENSUS.

The temptation to enlarge the scope of the special work of the census, to increase the number of questions on the schedules, and to obtain additional information in all directions is very great. Unless a distinct line is marked out and closely adhered to there is imminent danger of losing sight of the general statistics, which are essential to secure a complete report. These views have been impressed upon all the special agents of the Eleventh Census, and it affords me pleasure to say that in every case the work is well in hand, and that there is reasonable expectation that at least 80 per cent of it will be completed and ready for publication within the coming year. The time set by this office for the completion of all special reports has not been later than December 31, 1891.

To give some idea of the condition of the several divisions of the special work of the census, it is only necessary to call attention to the bulletins which have already been issued and which have been promised for the first part of the coming year.

The first bulletin published by this office contains a list of the supervisors' districts in the different States, with the counties composing the same. This was prepared in the geographical division.

The second bulletin, dated December 20, 1889, issued from the division of fish and fisheries, gives a description of the products of the fisheries of the United States. This division expects to issue other bulletins early in 1891.

The third bulletin, dated March 1, 1890, prepared by the division of manufactures, gives a list of manufacturing cities and towns in which statistics of manufactures were to be collected by special agents instead of enumerators. This division also prepared a bulletin, No. 9, dated August 20, 1890, on the production of pig iron, and bulletin No. 13, dated October 31, 1890, on the production of steel. This division expects to have ready for publication within the next six months bulletins on the following subjects: Distilled spirits used in the arts; naval stores; gas-lighting in 100 cities; railway and marine gas-lighting; municipal gas-lighting; printing, publishing, and periodical press; ship building; lumber and saw mills.

Bulletin No. 4 was prepared by the division of appointments, and gives the names and addresses of supervisors of the Eleventh Census.

Bulletin No. 5, dated May 15, 1890, consists of a letter written by the Superintendent of Census in reply to a Senate resolution as to the method of pursuing investigations for the statistics of farms, homes, and mortgages, required by the act of February 27, 1890. This division expects to issue five important bulletins within the next six months. The copy for one, showing the mortgage indebtedness of Alabama and Iowa, is now in the hands of the printer.

Bulletin No. 6, prepared by the division of wealth, debt, and taxation, gives a statement of the financial condition of counties in the United States. This division also prepared Bulletin No. 14, which was issued November 4, 1890, giving the financial condition of municipali-

ties. An additional municipal bulletin is now in press. It is expected that seven more bulletins will be issued by this division during the ensuing six months, as follows:

1. County bulletin in detail, giving summary by States.
2. Municipal bulletin, giving receipts and expenditures in detail of the principal cities, with a summary by States.
3. Monograph on financial powers of counties, cities, and other minor divisions.
4. Financial condition of 17,000 rural divisions.
5. Financial condition of 10,000 urban divisions; *i. e.*, towns, and incorporated villages having a population of less than 2,500 in 1880.
6. Monograph showing the provisions for taxation of all minor civil divisions.
7. Colored holdings, for purpose of assessed valuation in States where a separation is made.

Bulletin No. 7, on the indebtedness of States in 1880 and 1890, issued August 6, 1890, was prepared by the division of national and State finances. It is not expected that any further bulletins will be prepared by this division until the final report is ready, which will be within a few months.

The division of mines and mining has published two bulletins—No. 8, dated August 8, 1890, giving the statistics of slate, and No. 10, dated August 22, 1890, giving statistics of quicksilver. A bulletin on the production of anthracite coal is in press. A complete report on marble is nearly finished, and complete reports on granite, sandstone, and limestone will follow in rapid succession. Bituminous coal statistics will be published by States or groups of States, as completed, making ten or fifteen bulletins. Bulletins on iron ore, copper, lead, and zinc are nearly ready. The final report on the statistics of mines and mining will be ready for the printer in less than a year.

The division of transportation has prepared one bulletin, No. 11, dated August 23, 1890, in reference to rapid transit in cities. Eight more bulletins are in process of preparation. Two of these, pertaining to transportation by water on the Great Lakes, are now in the hands of the printer. One pertains to transportation by water on the Ohio River above Cincinnati. The others will relate to statistics of operation of railways in the ten years ending 1889 in four of the ten groups into which the territory of the United States is divided. These bulletins are nearly ready for publication.

The population division has issued a bulletin, No. 16, dated December 12, 1890, showing the official population of the United States by States and Territories. A bulletin giving the population of cities of 8,000 and over is nearly ready for the printer; also one giving the population for each State by counties. Later on bulletins will be issued showing results in each State in detail for all civil divisions.

Bulletin No. 15, dated November 7, 1890 was prepared by the special agent in charge of the census of Alaska, and gives a statement of the work of that division; also of his journey through Alaska during the past summer. Bulletins on the population of southeastern Alaska will be ready within a few weeks, and probably three more on the population of Kodiak, Unalaska, and Arctic districts within six months.

The division of vital statistics collected material for a bulletin on vital statistics of the Jews, which was published December 30, 1890. It is uncertain when the material for bulletins relating to the vital statistics of the country will be ready.

The division of church statistics has published one bulletin. It is expected that another will be ready in January, and four or five additional ones in the first half of next year. The work on church statistics will probably be completed by July or August, 1891, and Sunday school statistics about September, 1891.

The division of educational statistics has issued a bulletin giving a report of enrollment in the public schools of Louisiana, New Hampshire, and Wisconsin, and in many cities. About five more bulletins will be issued during the coming six months.

The division of agriculture expects to issue a number of interesting and valuable bulletins from time to time; one on farm organization will be forthcoming at an early date, and material is almost ready for a bulletin on viticulture.

A complete bulletin on the statistics of Indians will be issued as soon as the Navajo census is completed. The report relating to the condition of the Indians, made in compliance with section 9 of the act to provide for taking the Eleventh and subsequent censuses, approved March 1, 1890, is completed, and will be placed in the hands of the printer in a few days.

The division of social statistics of cities has in preparation a bulletin showing the growth of population in cities of 10,000 and upward, containing tables showing streets, drainage, police, etc., which will be ready about January 1. It is probable that three more bulletins will be issued by this division before the final report is completed.

FINANCIAL REPORT.

The total disbursements on account of the Eleventh Census of the United States from the commencement of operations up to and including December 31, 1890, amounted to \$4,810,204.69. The total is chargeable to branches of investigation as follows:

Census proper	\$388,350.65
Printing and stationery	334,830.98
Supervisors	238,457.35
Enumerators	1,901,432.00
Population and social statistics	415,669.60
Manufactures	255,457.16
Agriculture	47,835.73
Vital statistics and special classes	121,590.82
Wealth, debt, and taxation	131,057.22
Farms, homes, and mortgages	610,813.50
Mines and mining	140,719.81
Fish and fisheries	90,412.32
Transportation	64,260.62
Insurance	31,880.56
Churches	19,170.74
Pauperism and crime	18,265.63
	4,810,204.69

The following table gives the total number of clerks carried on the pay roll for each month since the date of my last report, and is a continuation of the table on page 14 of that report:

Months.	Total number on pay rolls.	Total amount of pay rolls.
July, 1890	1,812	\$110,717.30
August, 1890	2,115	136,075.75
September, 1890	2,212	146,316.10
October, 1890	2,238	155,214.45
November, 1890	2,184	152,537.35
December, 1890	2,161	154,798.45
Total		
Total to June 30, 1890		855,659.40
Grand total to December 31, 1890		1,265,601.55

EMPLOYÉS AND EXAMINATIONS.

The Census Office reached its maximum number of employés in October, the November pay roll showing a slight decrease. From this time on there will be a decrease in the total number of employés. As no more appointments are to be made, the work of the examining board is practically terminated. This board has examined 2,191 candidates for appointment and re-examined 150, equivalent to 2,341 examinations.

CENSUS PRINTING OFFICE.

During the period from July 1 to the date of this report twice the amount of work has been done in the Census Printing Office than in the entire preceding period since its organization. Under 820 requisitions 11,220,529 copies have been printed, at a cost of \$17,885.90. Adding the number of copies printed up to July 1, 1890, 5,911,805, gives a total number of copies printed at the Census Printing Office to date of 17,132,334.

VETERANS.

The schedules returned by the enumerators relating to veterans have been carefully examined, and the work of counting the entries of the names of soldiers, sailors, and others, with their records of service, is approaching completion.

The results of this preliminary count will establish the thoroughness of the canvass made by the census enumerators, as well as afford a basis for determining to what extent and in what direction supplementary work of the same character must be done. The methods to be pursued in the verification of the records of service and in supplying data omitted or incorrectly stated by the census enumerators require most careful consideration before their final adoption, so that no very definite statement can be made just at present as to the probable requirements of this branch of the work or as to just what steps ought to be taken in its prosecution. The system once established, however, this work becomes largely a matter of detail, requiring careful and methodical treatment and the employment of every means possible to insure accurate results, and, above all things, that the printed reports shall contain the names and residences, and, so far as possible, a verified statement as to the service of every surviving soldier, sailor, and marine who was mustered into the service of the United States during the late war, together with the names and residences of the widows of such as have died, accompanied by the records of the service of their deceased husbands in all cases where obtainable. It was hoped that the additional compensation provided by Congress for enumerating each soldier, sailor, etc., would have resulted in making the returns full and complete. The difficulty, however, of obtaining the required information from anyone excepting the persons themselves has proved to be so great that while it may be reasonably expected that the population schedule will contain a fairly complete list of all the veterans and widows of veterans, it will be necessary to supplement the work to a very great extent by direct correspondence from this office. It may be observed, in this connection, that the willingness on the part of veterans to furnish this information is likely to facilitate the work, and ultimately to perfect the records.

METHODS OF TABULATION.

The experience of six months has demonstrated that for the purpose of counting large numbers expeditiously as well as accurately the Hollerith method of tabulation, which has been adopted by the Census Office, has proved to be a success. Within less than two months the entire population of the country was counted twice.

While the inventor claimed for his system that 10,000 cards could be counted or sorted by a clerk in one day, it has been found that one clerk has actually counted 15,534 cards in one day of six and a half hours, while another has counted 15,289 cards, and a third has sorted 19,500 cards.

PAY OF ENUMERATORS.

It is gratifying to be able to inform you that at the present time every enumerator whose work was done in accordance with law and the instructions of this office has been paid. In the population division the examination of schedules for the settlement of enumerators' accounts has been completed. The total number of enumerators paid to date is 37,222, leaving, including the institution enumerators, 11,778 unpaid. These accounts are suspended because of imperfect returns on the special schedules, such as the agricultural schedule, the schedules relating to vital statistics, to statistics of special classes—deaf, dumb, blind, and insane—prison schedules, etc. The only means of completing the data for these special reports is by corresponding with the enumerators and insisting upon the correction of the special schedules before payment is made. The results of this correspondence have been most satisfactory, and contributed greatly toward perfecting the work. All enumerators will be paid, and the work of this section of the division of accounts and disbursements substantially completed, January 31, 1891.

GEOGRAPHICAL DIVISION.

In this division a number of draughtsmen are still employed in the preparation of a variety of maps for the final volume and for the statistical atlas. The areas of States and counties have been computed, and of all cities of 10,000 inhabitants and upward. A bulletin will soon be issued showing the areas of States and Territories and their respective counties. The density of population to the square mile of each county has been computed, and tables prepared showing the percentage of the population to be distributed by temperature, rainfall, altitude, and humidity, and other information furnished to the several divisions of the Census Office.

VITAL STATISTICS.

The records obtained from States and cities maintaining a compulsory system of registration of deaths are much larger than those obtained in previous censuses, and cover an aggregate population of over 17,000,000 people. The death records of this population for the census year in the State of New Jersey, in New York City, Brooklyn, Richmond County, Westchester County, Kings County, and part of Queens County, New York, and in Boston, Philadelphia, Baltimore, and the District of Colum-

bia, and for a somewhat lesser period of time in Chicago, Saint Louis, and Cincinnati, have been tabulated. The total number of deaths thus recorded, the records of which are especially accurate and complete, is 736,000. These records, in connection with those for the census year, furnish a continuous record of deaths for these localities for a period of six years, which will afford more reliable information than anything which has heretofore been published with regard to the vital statistics of this country.

Seventeen of the larger cities of this country, aggregating 7,428,949 of population, have been subdivided into sanitary districts according to local topography, drainage, character of inhabitants, etc., and the death rates will be given by these districts, as well as by wards, thus permitting of some most valuable comparisons for sanitary and sociological purposes.

For all these cities and States having an accurate registration of deaths the material has been obtained both with regard to the living population and those dying during the period under examination, to distinguish the members of different races, such as native Americans, English, French, German, Irish, Italians, Scandinavians, Russians and Poles, Bohemians, and Hungarians, and thus to determine the differences in their birth and death rates, and the special liability to and immunity from certain forms of disease possessed by members of these different races, which it has never heretofore been possible to give with any satisfactory degree of accuracy.

SOCIAL STATISTICS OF CITIES.

About eighty per cent of the schedules sent out by this division to the 355 cities on the list have been returned and completed. It is expected that the work of this division will be completed and ready for final report by September 1, 1891.

EDUCATIONAL STATISTICS.

The work of this division is well advanced. In addition to the bulletin just issued, giving the enrollment in the public schools of Louisiana, New Hampshire, and Wisconsin, the reports or summaries are in hand for the public schools of some fifteen States and Territories.

Reports from other States are promised at dates extending to April 1, 1891. Nearly 7,000 private schools and over 4,500 parochial schools have reported. With facilities for prompt printing, some five bulletins can be issued during the preparation of the final report to advantage, according as returns of attendance and illiteracy are ready. Much correspondence is yet necessary, as well as the classification and tabulation of information.

CHURCH STATISTICS.

The statistics for the Roman Catholic and Lutheran denominations, usually the most difficult of all to obtain, are completed. The returns for many other denominations have also been received and are being tabulated. There yet remains a considerable amount of work to be accomplished, but satisfactory progress is being made in the work. One bulletin has been issued, and another will be ready some time next month. There will probably be four or five more bulletins during the first half of next year. The work of collecting the statistics of churches

will probably be completed about July or August of next year. The Sunday school statistics will be completed about September 1, 1891.

PAUPERISM AND CRIME.

In the Tenth Census the examination of the population schedules for information as to the defective, dependent, and delinquent classes was begun about December 1, 1880, after the rough count had been completed. The copying of the names consumed an entire year and a half, so that the tallying of the result was not begun until May or June, 1882. At the present time the work of this division is so far advanced that the tallying and tabulation of the criminal population have already begun, and for a large portion of the pauper population and inmates of benevolent institutions the cards are in condition to begin tallying.

AGRICULTURE.

Not only does the investigation of the agricultural interests of the country which accompanies the decennial enumeration of the people increase in magnitude in at least an equal ratio with other important branches of census work, but, as stated in my last report, an endeavor has been made to render that accompanying the Eleventh Census much more thorough and comprehensive than has ever before been attempted. In several important respects the agricultural reports of past censuses have been very deficient, and statisticians and others have turned to them in vain for information concerning interests of great magnitude and importance. I fully believe that the plan which I have adopted in placing the entire work of this great division in the hands of two expert agricultural statisticians, to be responsible for the whole field of investigation, will secure not only, as has been said, a much greater degree of completeness and thoroughness, but also a unity of design and justness of proportion that have never before been attained.

The exhaustive investigation made in connection with the Tenth Census into the production of meat, cotton, tobacco, and the cereals, and likewise into forestry, renders it unnecessary that the present inquiry should be extended beyond the developments and other changes of the past ten years, and the principal features of the forthcoming agricultural report will accordingly consist of subjects that have never before had any prominent place in the census investigation. Among these are horticulture, viticulture, irrigation, the production of sugar, and the peculiar conditions of farm occupancy which prevail in the Southern States, all of which carry with them their own justification; horticulture being a subject of more or less importance in almost every State in the Union; viticulture, an interest that is rapidly coming into the front rank, especially in California and New York; the production of sugar, an industry that is now attracting a more than ordinary amount of attention; the cultivation of the soil by the freedmen of the South, a matter involving social and economic questions of far-reaching importance; and irrigation, the agency to which some of the most prosperous agricultural regions of the United States owe their present productiveness, and the only method by which a large portion of the arid belt can ever be successfully brought under cultivation. Preliminary bulletins on horticulture and viticulture will be ready for publication within a short time, and as fast as the general agricultural schedules can be tabulated other statistics will likewise be made public.

FARMS, HOMES, AND MORTGAGES.

The work accomplished by this division up to date may be briefly stated as follows:

Number of counties in which complete abstracts have been made	2,777
Number of counties in which abstracting is yet unfinished.....	5
Total number of counties in the United States	2,782
Number of counties in which supplemental work must be done owing to incompleteness of abstracters' returns	17
Number of mortgages for which abstracts have been made.....	8,874,860
Estimated number of mortgages for which abstracts are yet to be made in counties that are not to be re-abstracted	18,000
Number of mortgages recorded in the United States during the ten years ending December 21, 1889, rough count and estimated.....	8,892,860
Number of inquiry counties in which investigation has been completed ..	97
Number of inquiry counties in which investigation is yet to be completed.	7
Total number of counties computed for average life.....	1,469
Total number of counties sorted.....	1,044
Total number of counties transferred to result slips.....	268

Bulletins for Alabama and Iowa are now in the hands of the printer.

The information in regard to the following points will be called for by the farm and home schedule prepared in accordance with the provisions of the act of February 22, 1890: Whether the incumbrance was a crop lien; amount of incumbrance unpaid June 1, 1890; value of the farm or home; actual rate of interest; object of the indebtedness.

A force of clerks is now engaged copying from the population schedules names of persons whose homes and farms are reported as mortgaged. To these persons schedules are being sent asking for the above information. As I have already said, within a few months the Census Office expects to announce the number of persons in the United States living in rented homes and cultivating rented farms; the number occupying their own homes and farms free from debt, and the number reported as owning farms and homes which are mortgaged. While the facts obtained by this investigation will throw a new light upon the subject of mortgage indebtedness, and while the material gathered bids fair to be far more complete and far more reliable than I had ever hoped, the cost of the inquiry has been great, and will fully reach my original estimate of \$1,250,000 to \$1,500,000. At the time the law relating to the collection of the statistics of mortgage indebtedness was passed I called the attention of the census committees of both Houses of Congress to the probable cost of the work. While every effort has been made to conduct the work as economically as possible, the expense has been enormous. Some idea of the obstacles to be overcome was given in my annual report.

WEALTH, DEBT, AND TAXATION.

The subject of State finances and of wealth, debt, and taxation was fully set forth in my annual report. Little is to be added, excepting that the prospects for a speedy termination of this work are greater than at that time; that the bulletins already referred to are in preparation, and that all the work in connection with this division will be completed and in the hands of the printer by next fall. It is expected that these reports will be the most complete of any reports of the kind that have ever been published.

MANUFACTURES.

In the collection of statistics of manufactures 1,042 cities and towns were withdrawn from the enumerators.

Special agents, 1,363 in number, have been appointed for 937 cities and towns; 652 special agents have completed their work, 219 resigned or declined, and 492 are now on duty.

MINERAL RESOURCES OF THE UNITED STATES.

The remaining work of this division consists in collecting the fag-end of its data, always a difficult task, requiring great tact and patience. For example: On account of speculative activity in the Lake Superior region, an iron-ore mine was operated by four successive owners within the calender year 1889. Partial returns were necessary from each owner, and they have been obtained, but with difficulty. In another case a schedule sent for correction to a gold miner in Colorado arrived on the morning of his death, and no other person being fully informed as to the details of his business, the necessary statistics were obtained only by persevering inquiries among his various employés. There is nothing unusual in these tardy schedules, and nothing which was not provided for as far as possible in advance. Usually delays have been due to changes of ownership or to sickness. Very little trouble has been given by refusals to answer; indeed, the most gratifying spirit of co-operation has been the rule among the producers. Good results have already been obtained, as will be seen by the statement of bulletins published or in preparation by this division.

TRANSPORTATION.

The work of the transportation division has advanced to a point where a definite statement as to the publication of bulletins and completed reports may be given with a fair degree of accuracy.

The decennial street railway investigation is completed. The collection of data for annual street railway schedules will be completed in January, 1891, and the schedules may be compiled in about three months. The collection of data for decennial steam railway schedules will be completed by February 1 next, and the schedules may be compiled in four months. The collection of data for water transportation already completed in certain parts of the country may be completed for all parts by March 1 next. The compilation will probably require four or five months.

The investigation into express business will be completed by March 1, 1891. The entire work of this division will probably be finished about July or August of next year.

FISH AND FISHERIES.

This division has up to the present time canvassed every county on the Atlantic coast, the Gulf of Mexico, and the Great Lakes, including such large indentations as Chesapeake Bay, and is at present engaged in collecting the odds and ends of these regions. Ninety per cent of the schedules east of the Mississippi have been received, and the remaining ten per cent are expected by January 30. More than one-half of the work on the interior rivers tributary to the Mississippi is done, and this work is expected to be completed by January 15. On the Pacific coast there are 132 counties to be canvassed. A field force of fifty is now at work, and it is expected that the entire Pacific work will be finished by January 30.

In a few days a bulletin on the Chinese fisheries of Marion County, California, will be ready for printing.

It is estimated that 10,000 schedules will be obtained from the Pacific coast.

INSURANCE.

The work of this division is well advanced. The fire insurance business is being compiled, and all of it should be in the hands of the compilers during January next.

Life insurance, Class A—Old-line companies.—Nearly all the schedules have been received, are being examined, and should be ready for compilation in January next.

Life insurance, Class B—Co-operative and assessment companies.—The schedules are nearly all in the hands of the companies. They are being returned very satisfactorily, both as to numbers and condition. They should be ready for compilation by February 1 next.

Beneficiary associations.—This branch of the work of the division is much the largest, and in one respect the most important. It opens up a field of inquiry which has not heretofore commanded attention, and one that is by far the most widespread. It reaches into all classes of mercantile, manufacturing, and professional pursuits, and the results, when published, will be of great interest and practical value to the general public. The schedules are being rapidly sent to the associations from the New York and Washington offices, and are being completed and promptly returned.

Fire department and water supply.—This work is nearly ready for the compiler.

INDIANS.

The work of this division is well advanced. All of the Indian tribes have been enrolled or counted, and, with the exception of five tribes, the schedules have all been returned. The enrolling of the Navajoes will not be completed before June or July, 1891. The total Indian population is shown to be 249,273. The Indians living off reservations and taxed or taxable number 32,567, and the Indian and white population of Indian Territory in the five civilized tribes number 177,782, the white, colored, and Chinese combined numbering 111,493. The field work is being rapidly closed, and by February next only six special agents will be employed. The report upon the condition of the Indians by the special agents is now in preparation.

ALASKA.

At this date the field work in Alaska has been completed in the two southeastern districts, and also in the Kodiak, Oonalaska, and Arctic districts. There is every reason to believe that the field work in the three interior districts of the Yukon, Kuskokvim, and Nushegak is very nearly completed, though the returns can not be obtained until next spring. The islands in Bering Sea, intrusted to Captain Healy, will have to be enumerated next spring. Population schedules thus far received number about 4,000; special schedules, 211. The schedules yet to be received will approach 6,000. It is expected that the completed report will be ready about December 1, 1891.

Very respectfully,

ROBERT P. PORTER,
Superintendent of Census.

The SECRETARY OF THE INTERIOR.

REPORT
OF THE
SUPERINTENDENT OF CENSUS
FOR THE SIX MONTHS ENDING JUNE 30, 1891.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., June 30, 1891.

SIR: I have the honor to submit herewith a report of the operations of the Census Office for the six months ending June 30, 1891. This report, together with the report for the six months ended December 31, 1890, comprises a complete statement of the work accomplished by the Census Office for the fiscal year ending June 30, 1891. With the exception of eight or ten special agents gathering the fragments of information in relation to manufactures the field work of the Eleventh Census is completed. The enumerators have all been paid, and the division in charge of this work disbanded. Having in view the fundamental idea of the Eleventh Census that prompt publication greatly increases the value of statistics, sufficient force was employed to expedite the work of tabulating the population returns, and at the same time the clerical effectiveness of the several important divisions having in charge the special inquiries was not impaired. This plan has worked satisfactorily, and by August 15 the 62,622,250 cards, representing each individual enumerated, will be punched ready for the electrical tabulating machines. The completion of this work releases about 1,250 employes, including clerks, skilled laborers, messengers, laborers, etc., and will reduce the force of the population division to about 400 persons. By August 10, or exactly nine months after receiving the last schedules from the enumerators, I shall be able to lay before you the completed bulletins of the aggregate population of the United States by minor civil divisions. The office force will next be directed to the compilation of the Compendium of the Census, the manuscript for the first volume of which should be in the hands of the Public Printer not later than October. Work has already been commenced on the text of the final population volume, and some of the maps are in course of preparation. There is no reason why the population volume should not be published in 1892.

Aside from the bulletins giving the population by minor civil divisions for each State, the following bulletins have been issued by the population division:

Bulletin No. 16—Population of the United States by States and Territories: 1890. The official count, 62,622,250.

Bulletin No. 37—Population by Counties: North Atlantic and South Atlantic divisions.

Bulletin No. 40—Population by Counties: North Central division.

Bulletin No. 42—Population by Counties: South Central and Western divisions.

Bulletin No. 48—The White and Colored Population of the South: 1890.

Bulletin No. 52—Urban Population in 1890 of cities containing 8,000 inhabitants or more.

In the veteran section 256,498 cards have been transcribed to date. This work of transcribing has, however, been abandoned for the present, owing to the reduction of the clerical force. Circular requests have been sent to about five hundred representative newspapers throughout the country, calling for a gratuitous publication of the veteran blank for the purpose of eliciting responses from veterans who were overlooked by the enumerators in June, 1890, or those who believe they were thus neglected. The publication of this circular is attended with no expense to this office, and the results thus far have proved most beneficial. There seems to be but little question that the original enumeration was, so far as numbers alone are concerned, a remarkably full one, and through the efforts of the press, now in progress, the stragglers are being also added to the lists already in our possession; so that when this work is completed the enumeration of the survivors of the war of the rebellion may be said to be as full and complete as it is practicable to make it. Congress not having made an appropriation for printing these names, I have not deemed it prudent to maintain a large number of clerks on this branch of the work.

TABULATING MACHINES.

In connection with the population work of the Eleventh Census I feel it but just to call attention to the highly satisfactory work of the Hollerith system of tabulation, which was adopted by this office after a careful investigation by experts of the several methods of tabulation. The saving to the office has been fully equal to anticipations. Instead of an average on the keyboard punches of five hundred cards per day per clerk, as estimated by the committee, the average has been seven hundred. The system has also made it possible to keep a complete check upon the work, and thereby largely reduce the percentage of error. The use of these machines will enable the Census Office not only to present a greater variety of facts in relation to our population in a much less time than ever before, and at a comparatively small cost, but will render possible the tabulation of all the facts contained in the schedules in any combinations, even the most complex, which has never been possible with any method heretofore employed in censuses of this or any other country.

After a careful and personal examination, the statisticians of several other governments, notably those of Canada and Austria, have adopted without a change what is now known as the American system of tabulation.

FINANCIAL REPORT.

In the following financial statements there are apparent discrepancies caused by sundry deposits to the credit of appropriations, received under section 23 of the census act, which provides that upon

the request of any municipal government, the Superintendent of Census shall furnish such government with a copy of the names with age, sex, birthplace, and color, or race, of all persons enumerated within the territory in the jurisdiction of such municipality, and such copies shall be paid for by such municipal government, and also by charges to the appropriations by the Treasury Department for travel over bonded and subsidized railroads.

The financial report herewith submitted comprises a complete statement of the expenditures of the office from its organization to the end of the fiscal year ending June 30, 1891.

Disbursements on account of the Eleventh Census of the United States up to and including June 30, 1891.

ADMINISTRATION.

For salaries	\$2, 304, 630. 87	
For furniture and fittings	56, 703. 05	
Miscellaneous	592, 830. 49	
		\$2, 954, 164. 41

SPECIAL AGENTS.

For per diem	\$786, 729. 59	
For traveling expenses	323, 334. 19	
Miscellaneous	138, 945. 86	
		1, 249, 009. 64

SUPERVISORS.

For compensation	\$177, 745. 00	
For clerk hire	65, 916. 11	
Miscellaneous	15, 271. 13	
		258, 932. 24
Enumerators		2, 481, 887. 83
Total		6, 943, 994. 12

Paid from appropriations as follows:

"Expenses of the Eleventh Census"	\$5, 819, 247. 71
"Farms, homes, and mortgages"	814, 021. 90
"Printing, engraving, and binding"	310, 724. 51
Total	6, 943, 994. 12

Under the head of "Administration," "miscellaneous" covers rent, stationery, and miscellaneous supplies and services, together with traveling expenses of employes other than special agents.

Under the head of "Special agents," "miscellaneous" covers the purchase of supplies, the hire of temporary assistance, clerical and other, and, in short, all expenses of special agents, except per diem and traveling expenses.

The foregoing amount is chargeable to branches of investigation as follows:

Census proper	\$536, 348. 23
Printing and stationery	434, 120. 72
Supervisors	268, 849. 93
Enumerators	2, 481, 887. 83
Population and social statistics	887, 680. 21
Manufactures	474, 420. 03
Agriculture	140, 601. 57
Vital statistics and special classes	204, 269. 31
Wealth, debt, and taxation	155, 974. 50
Farms, homes, and mortgages	834, 981. 63
Mines and mining	191, 246. 00

Fish and fisheries.....	\$119, 016. 76
Transportation	105, 616. 52
Insurance.....	46, 399. 46
Churches	27, 146. 09
Pauperism and crime	35, 435. 33
Total	6, 943, 994. 12

The apparent discrepancy in the amount chargeable to the farms, homes, and mortgages branch of the investigation and the amount expended from the appropriation for that special investigation is due to the fact that expenditures were made from the general appropriation for the expenses of the Eleventh Census in the collection of statistics relating to mortgage indebtedness prior to the passage of the act of February 22, 1890.

The following table gives the total number of clerks carried on the pay roll for each month since the date of my last report, and is a continuation of the table on page 22 of that report:

Number of employés.

Months.	Total number on pay rolls.	Total amount of pay rolls.
January, 1891	2, 151	\$159, 706. 70
February, 1891	2, 121	144, 305. 20
March, 1891	2, 298	162, 403. 00
April, 1891	3, 119	184, 665. 25
May, 1891	3, 108	202, 279. 80
June, 1891.....	2, 560	184, 259. 50
Total		1, 037, 619. 45
Total to December 31, 1890		1, 265, 601. 55
Grand total to June 30, 1891.....		2, 303, 221. 00

PRELIMINARY PRINTING.

The number of copies printed since the beginning of the Eleventh Census is about 135,000,000, of which some 20,000,000 were envelopes (properly classed as stationery).

The census printing office, authorized under the act to provide for taking the Eleventh and subsequent censuses, has fully demonstrated the wisdom of its establishment. About 35,000,000 copies of circulars, tally sheets, bulletins, etc., have been printed at this office since its establishment.

An immense number of tabulation sheets used by the Census Office were printed and ruled here, not one having been done elsewhere for more than a year. Since January 1, 1891, the number of these sheets aggregated 725,000, and, counting each ruling necessary as one separate sheet, this number really represents 1,925,000 sheets. Some of these ruled sheets had to be passed through the machine fifteen times before being complete.

All the population bulletins and a majority of those on special subjects were printed in this office.

This enormous mass of preliminary printing (including, as it does, schedules, circulars, postal cards, etc.) was handled by the printing and stationery division without an error of moment, and it is, in my opinion, in great measure due to the efficient work thus performed that the work of the Eleventh Census is so far advanced.

Besides the labor required to handle the printing of the Eleventh Census, this division has charge of the stationery and supplies, and too much praise can not be awarded those in charge of this important branch of the work for the excellent manner in which it has been conducted.

CENSUS PUBLICATIONS.

It is difficult to make a close estimate as to the exact amount of money required to complete and publish the Eleventh Census. Though repeatedly asked by committees and other persons interested, I have never yet ventured an estimate on any part of the work except that relating to farms, homes, and mortgages. I have insisted upon the strictest economy in all branches of the office consistent with the most thorough work. The work of correcting and supplementing the returns of the enumerators has been enormous, and the time and clerical labor involved in this branch of the work can not be estimated in advance. The cost of obtaining the names, length of service, etc., of the veterans of the war has likewise been great. While the Eleventh Census, when published, will be purely a statistical census, it will include many investigations and important results not obtained in 1880.

In the last report attention was called to the necessity of an additional appropriation by Congress to complete the farms, homes, and mortgages work, and additional money will be required to complete the other work in accordance with the present plan. The exact amount of money necessary to complete the entire work will depend so much upon what this office may be able to accomplish during the next six months that I am unable at this time to state positively the amount. I should think it safe, however, to estimate the probable cost of the completion of the work, including the inquiries which were authorized by Congress after the act of March 1, 1889, was passed, and hence not provided for in the original appropriation for the Eleventh Census, at \$1,000,000. This sum, in my opinion, will finish the entire work, including farms, homes, and mortgages and the names of veterans of the war, in accordance with the original plans and in a manner highly creditable to the nation. Meantime I have the honor to inform you that the present appropriations are sufficient to keep the work of all divisions moving as rapidly as anticipated in the forecast of the work. While it is possible to handle millions of schedules, punch millions of cards, and address millions of envelopes more rapidly with a large force, the work of adjusting minor civil divisions, of making final tabulations, of preparing copy for the printer, of writing text and revising proofs, can only be done by the expert few. Ample provision has been made by Congress for the Census Office in all its divisions until 1892.

In accordance with the present plan, the final publications of the Eleventh Census will consist of the following volumes:

THE DIGEST.

THE COMPENDIUM:

Part I—Population and social statistics.

Part II—Wealth and industries.

VOLUME I—Population—Robert P. Porter, Henry Gannett, and William C. Hunt:

Part I—Characteristics, conditions, distribution, and parentage.

Part II—Occupations.

VOLUME II—Vital and social statistics—John S. Billings, surgeon United States Army:

Part I—Mortality and vital statistics.

Part II—Social statistics.

Part III—Statistics of special classes.

Part IV—Frederick H. Wines—Crime, pauperism, and benevolence.

VOLUME III—Educational and church statistics:

Part I—James H. Blodgett—Statistics of education and illiteracy, including enrollment in public, private, and parochial schools; age, race, sex, and maternal nativity of teachers, pupils, and illiterates, with duration of attendance at school and occupations of illiterates.

Part II—Henry K. Carroll—The religious bodies of the United States: Statistics showing the number of organizations, of edifices with seating capacity and value thereof, and of communicants; with introductory, historical, and descriptive statements.

VOLUME IV—Valuation, taxation, and public indebtedness—J. Kendrick Upton and T. Campbell-Copeland:

Part I—Valuation and taxation.

Part II—Receipts and expenditures.

Part III—Indebtedness.

VOLUME V—Farms, homes, and mortgages—John S. Lord and George K. Holmes:

Part I—Recorded indebtedness.

Part II—Ownership of farms and homes, and indebtedness thereon.

VOLUME VI—Agriculture:

Part I—John Hyde—Irrigation, Frederick H. Newell; tobacco, Thomas N. Conrad; statistics of farms, cereals, grass land and forage crops, the fibers, forestry, sugar, live stock on farms, dairy products, wool, and miscellaneous.

Part II—Mortimer Whitehead—Horticulture, including truck farming, floriculture, seed farming, nurseries, tropic and semitropic fruits, J. H. Hale; viticulture, live stock on ranges, live stock not on farms.

VOLUME VII—Manufactures—Robert P. Porter and Frank R. Williams:

Part I—General statistics of manufactures, statistics of specified industries, manufactures of cities.

Part II—Reports of expert special agents, as follows: Lumber mills and saw mills and timber products, George A. Priest; slaughtering and meat packing, Thomas C. MacMillan; chemical manufactures and salt, Henry Bower; clay and pottery products, Henry T. Cook; coke and glass, Joseph D. Weeks; cotton manufactures, Edward Stanwood; dyeing and finishing of textiles, P. T. Wood; electrical industries, Allen R. Foote; manufactured gas, George W. Graeff; iron and steel, William M. Sweet; printing, publishing, and periodical press, J. J. Noah; wool manufactures, including woolen goods, worsteds, felt goods, carpets other than rag, wool hats, hosiery, and knit goods, S. N. D. North; ship building, Charles E. Taft; silk and silk goods, Byron Rose.

Part III—Statistics of special industries: Agricultural implements, paper mills, boots and shoes, leather, tanned and curried, brick yards, flour and grist mills, cheese, butter, and condensed-milk factories, carriages and wagons, leather, patent and enameled.

VOLUME VIII—The mineral industries of the United States—David T. Day: Iron ore, John Birkinbine; gold and silver, Richard P. Rothwell; copper, lead, and zinc, Charles Kirchhoff; quicksilver, James B. Randol; manganese, petroleum, natural gas, Joseph D. Weeks; aluminum, R. L. Packard; coal, John H. Jones; stone, William C. Day; precious stones, George F. Kunz; mica, Lyman J. Childs; mineral waters, Dr. A. C. Peale; minor minerals, E. W. Parker.

VOLUME IX—Fish and fisheries—Charles F. Pidgin and Bert Fesler:

Part I—Statistics of fisheries by geographical divisions.

Part II—Statistics of fisheries by name.

Part III—Appendix, containing scientific and popular names of fishes, with their geographical distribution; illustrations of the principal food fishes of the United States; condensed description of fish by species; statistical summary for each species for the United States; directory of principal firms and corporations engaged in the fishing industry of the United States.

VOLUME X—Transportation—Henry C. Adams:

Part I—Railroads: Statistics for the year ending June 30, 1890; statistics for ten years ending in 1889.

Part II—Lake, ocean, river, and canal transportation: Canals, T. C. Purdy; transportation on the Pacific coast, T. J. Vivian.

Part III—Express business.

Part IV—Street railways, Charles H. Cooley.

VOLUME XI—Insurance—Charles A. Jenney:

Part I—Fire, ocean marine, inland navigation and transportation, and tornado insurance business.

VOLUME XI—Insurance—Charles A. Jenney—Continued.

Part II—Life insurance, showing the business of level premium, assessment, and co-operative companies.

Part III—Miscellaneous insurance, including the business of the accident, burglary and theft, guarantee, hail, live stock, plate glass, real estate title guarantee, steam boiler, surety, and wind storm insurance companies.

Part IV—Fraternal and other beneficiary associations.

VOLUME XII—Indians—Thomas Donaldson: Report and statistics of the condition of Indians living within the jurisdiction of the United States, 1890, taxed and untaxed.

VOLUME XIII—Alaska—Ivan Petroff.

VETERANS OF THE CIVIL WAR. (Seven volumes of 1,000 pages each; publication not yet authorized.)

STATISTICAL ATLAS. (Publication not yet authorized.)

SPECIAL WORK OF THE CENSUS.

The special work of the Census Office is well advanced. The special work of the census proper, with the exception of the vital statistics, statistics of special classes, statistics of agriculture, and statistics of manufactures, is nearing completion. Much of importance has already come from these divisions in the shape of bulletins, and these publications will be continued throughout the year.

It is anticipated that Volume IV, relating to valuation, taxation, and public indebtedness; Volume X, transportation; Volume XI, insurance; Volume XII, report and statistics of the condition of Indians; Volume XIII, Alaska, and parts of Volume III, educational and church statistics; Volume V, farms, homes, and mortgages, and Volume IX, fish and fisheries, will be ready for the printer during the present year.

GEOGRAPHICAL DIVISION.

The work of verifying the minor civil divisions of the country, which has been done by this division, will be finished about August 1, and the small force retained will be occupied in preparing the maps and illustrations for the final volumes. The following bulletins have been published by this division:

Bulletin No. 1—Division of country into Supervisors' Districts.

Bulletin No. 23—Areas of States and Counties.

Bulletin No. 32—Distribution of Population in accordance with Mean Annual Rainfall.

Bulletin No. 33—Distribution of Population with reference to Mean Annual Temperature.

Bulletin No. 34—Center of Population of the United States: 1890.

Bulletin No. 44—Distribution of Population in accordance with Mean Relative Humidity of the Atmosphere.

Bulletin No. 47—Distribution of Population by Drainage Basins.

Bulletin No. 63—Distribution of Population in accordance with Latitude and Longitude.

Bulletin No. 65—Distribution of Population in accordance with Topographic Features.

Bulletin No. 89—Distribution of Population in accordance with Altitude.

Extra Census Bulletin No. 1—Increase and Decrease of Population: 1880–1890.

Extra Census Bulletin No. 2—Distribution of Population according to Density: 1890.

VITAL STATISTICS.

The card punching will be finished in this division by August 1, and by November 1 it is expected that the machine tabulation will be completed. The final computations can not be made until after the population work is finished; hence the final volume on vital statistics will be among the last publications of the Eleventh Census. The work, however, is as far advanced as possible at the present time. The following bulletin has been issued by this division:

Bulletin No. 19—Vital Statistics of the Jews in the United States.

SPECIAL CLASSES.

The following bulletins have been issued by this division:

Bulletin No. 62—Asylums for the Insane in the United States.

Bulletin No. 81—Schools for the Blind in the United States.

A bulletin on institutions for the deaf during the past decade will be issued within the next ninety days.

SOCIAL STATISTICS OF CITIES.

Work in this division will be completed during the present year. A bulletin on the social statistics of fifty cities has been issued, and one on waterworks, and another on drainage for all cities that have made returns on these subjects will be issued within the next few months.

CHURCH STATISTICS.

By the first week in November the work of this division should be ready for the printer. The following bulletins have already been issued:

Bulletin No. 18—Statistics of Churches: For the United Presbyterian Church of North America, Church of the New Jerusalem, Catholic Apostolic Church, Salvation Army, Advent Christian Church, Evangelical Adventists, Life and Advent Union (Adventists), Seventh-day Baptists, Seventh-day Baptists (German), General Six Principle Baptists, Schwenkfeldians, Theosophical Society, Brethren in Christ, and Christian Church, South.

Bulletin No. 70—Statistics of Churches: For the Cumberland Presbyterian Church, Church of Jesus Christ of Latter-day Saints (Mormons), Reformed Episcopal Church, Unitas Fratrum or Moravian Church, German Evangelical Synod of North America, German Evangelical Protestant Church of North America, and Plymouth Brethren.

Bulletin No. 101—Statistics of Churches: For the Roman Catholic Church, Greek Catholic Church, Russian Orthodox Church, Greek Orthodox Church, Armenian Church, Old Catholic Church, and Reformed Catholic Church.

Other bulletins relating to the Lutheran Church and to a number of smaller denominations will be ready for publication within the next ninety days.

EDUCATIONAL STATISTICS.

Until the population division is able to turn over the statistics of occupation and illiteracy little more can be done in the division of educational statistics. The following bulletins have been issued by this division:

Bulletin No. 17—Preliminary Statistics of Education: For Louisiana, New Hampshire, Wisconsin, various cities of the United States, and the Church of Jesus Christ of Latter-day Saints.

Bulletin No. 36—Statistics of Education: For Arizona, California, Connecticut, District of Columbia, Maine, Maryland, Massachusetts, Montana, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Vermont, Virginia, Wyoming, and eighty-three cities.

Bulletin No. 53—Statistics of Education: For Alaska, Arkansas, Delaware, Illinois, Iowa, Michigan, Minnesota, Mississippi, New Mexico, New York, North Dakota, Oregon, Texas, Utah, Washington, West Virginia, and forty-two cities.

Bulletin No. 84—Statistics of Education: For Alabama, Colorado, Florida, Georgia, Idaho, Indiana, Kansas, Kentucky, Missouri, Nebraska, Nevada, New Jersey, Tennessee, and one hundred and five cities.

An extra census bulletin, giving a summary of the statistics embraced in these bulletins, accompanied by a map, will be issued shortly.

CRIME, PAUPERISM, AND BENEVOLENCE.

The bulk of the work on pauperism and crime will be completed by December 31, 1891, but the volume can not well be finally published before the population volume is issued, because criminals and paupers constitute part of the population, and statistics in regard to their illiteracy, civil condition, and nativity should be compared with these statistics for the population at large. This division has issued the following bulletins:

Bulletin No. 31—Convicts in Penitentiaries: 1890.

Bulletin No. 72—Inmates of Juvenile Reformatories: 1890.

Bulletin No. 90—Paupers in Almshouses: 1890.

Bulletin No. 95—Prisoners in County Jails.

Other bulletins on sentences of convicts in penitentiaries, police statistics, city prisons, leased prisoners, and inmates of workhouses are nearly ready for the printer. The division will soon furnish a bulletin on inmates of benevolent institutions. Bulletins on crimes, on relations between crimes and sentences, and on the criminal population are in course of preparation.

WEALTH, DEBT, AND TAXATION.

The work in this division is well advanced in all its branches. The work in relation to indebtedness will be completed this year. The following bulletins have already been issued:

Bulletin No. 6—Financial Condition of Counties.

Bulletin No. 7—Indebtedness of States in 1880 and 1890.

Bulletin No. 54—Public School Finances.

Bulletin No. 64—Foreign, National, State, and County Indebtedness.

Bulletin No. 82—Receipts and Expenditures of One Hundred Principal or Representative Cities of the United States.

A further bulletin on public school finances, one on the finances of Maine, and one on the finances of Alabama and Minnesota will be issued within the next ninety days.

FARMS, HOMES, AND MORTGAGES.

A large force in this division has been engaged in transcribing 2,491,930 names from the enumerators' schedules and in corresponding

with the vast number of persons who were returned by the enumerators as having their farms and homes mortgaged. It is doubtful if a correspondence direct with two millions and a half of persons was ever undertaken before by any government in the world. The Census Office has received answers to 82 per cent of the schedules thus sent to individuals in the State of Iowa, and the returns coming in from other States indicate that from 75 to 85 per cent of the returns will be obtained in this manner, and thus reduce a part of the expense of sending special agents into the field. The transcribing is finished, and the bulk of the correspondence will be completed September 1. This work has delayed the tabulation of the material already secured, but a force of clerks have commenced the tabulation and will complete during the present year the volume relating to the recorded indebtedness of the United States.

Extra Census Bulletin No. 3, statistics of farms, homes, and mortgages of Alabama and Iowa, has been issued by this division, showing the plan and scope of this branch of the farms, homes, and mortgages work, and similar bulletins for the States of Kansas and Tennessee, and possibly for Illinois, will be ready for the printer within the next ninety days.

AGRICULTURE.

The Agricultural Division has already made several valuable reports. Within the next ninety days the work on irrigation will be finished, and bulletins relating to tobacco by counties, to cotton, sugar, rice, hops, hemp, flax, peanuts, and broom corn will be ready for the printer. The statistics of the staple crops, wheat, corn, oats, etc., of farms and of live stock will be finished during 1892. The following bulletins have already been issued by this division:

Bulletin No. 35—Irrigation in Arizona.

Bulletin No. 38—Viticulture.

Bulletin No. 41—Truck farming.

Bulletin No. 59—Floriculture.

Bulletin No. 60—Irrigation in New Mexico.

Bulletin No. 85—Irrigation in Utah.

Bulletins relating to seed farms, to live stock on ranges, to horses, mules, and asses, and to irrigation in Wyoming are already in press.

MANUFACTURES.

The field work in this division will be completed by August 1, except in a few scattered localities, and the special inquiries relating to chemicals, clay and pottery, cotton, iron, and steel, wool and worsteds; printing, publishing, and the periodical press; dyeing and finishing, silk and silk goods, manufactured gas, and the electrical industry will be closed out by November 1. The revision and tabulation of these returns will occupy a large part of 1892, though the volume should be ready for press by the fall of that year. The following bulletins have already been issued by this division:

Bulletin No. 9—Production of Pig Iron.

Bulletin No. 13—Production of Steel.

Bulletin No. 22—Distilled Spirits Consumed in the Arts, Manufactures, and Medicine.

Extra Census Bulletin No. 5—Statistics of Manufactures: Lumber mills and Sawmills and timber products.

A bulletin on the manufactures of Washington City and St. Louis will be issued within the next ninety days, to be followed at short inter-

vals by bulletins containing statistics of manufactures for principal cities and special reports noted above.

MINERAL RESOURCES.

The work of the Division of Mines and Mining is completed, and the final volume is in the hands of the Public Printer. Bulletins have been issued as follows:

- Bulletin No. 8—Slate.
- Bulletin No. 10—Quicksilver.
- Bulletin No. 20—Anthracite Coal in Pennsylvania.
- Bulletin No. 26—Maryland Coal.
- Bulletin No. 27—Alabama Coal.
- Bulletin No. 43—Coal Product west of the Mississippi River.
- Bulletin No. 45—Granite.
- Bulletin No. 49—Precious Stones and Diamond Cutting.
- Bulletin No. 61—Mica.
- Bulletin No. 67—Bituminous Coal in Pennsylvania.
- Bulletin No. 68—Manganese.
- Bulletin No. 71—Bluestone.
- Bulletin No. 73—Sandstone.
- Bulletin No. 74—Coal Product of Illinois, Ohio, Indiana, and Michigan.
- Bulletin No. 75—Minor Mineral Industries.
- Bulletin No. 76—Petroleum.
- Bulletin No. 78—Limestone.
- Bulletin No. 79—Aluminium.
- Bulletin No. 80—Lead and Zinc.
- Bulletin No. 94—Coal Product of West Virginia, Kentucky, Tennessee, Virginia, Georgia, and North Carolina.
- Bulletin No. 96—Copper.

Extra Census Bulletin No. 4—Mineral Waters.

The complete report on the marble quarrying industry has been issued as a monograph.

Bulletins relating to iron ore, natural gas, and a summary of the mineral products of the United States are in press, and will shortly be issued.

FISH AND FISHERIES.

The report on fish and fisheries will be the most complete statistical exhibit of our fisheries ever printed. The assistance and co-operation of the United States Fish Commission in this work will greatly enhance its value.

The division will issue within the next month a bulletin on the mammal fisheries of the United States and one on the fisheries of the Pacific coast. One on the fisheries of the Great Lakes will be ready by September 1, and others on the New England, South Atlantic, and Gulf fisheries will be ready within ninety days. Other bulletins will follow later.

TRANSPORTATION.

The work of this division will be completed during the present year. The following bulletins have already been issued:

- Bulletin No. 11—Rapid Transit in Cities.
- Bulletin No. 28—Freight Traffic on the Great Lakes.
- Bulletin No. 29—Changes in Floating Equipment on the Great Lakes since 1886.
- Bulletin No. 46—Railway Statistics of the New England States.

Bulletin No. 55—The Relative Economy of Cable, Electric, and Animal Motive Power for Street Railways.

Bulletin No. 66—Floating Equipment on the Great Lakes.

Bulletin No. 88—Transportation on the Ohio River and its Tributaries above Cincinnati.

The complete statistics of street railways are already in press. Two bulletins upon decennial railroad statistics are ready for the printer, which, with seven additional ones that will be ready September 1, will complete the decennial statistics. A bulletin relating to the cost of maritime transportation is compiled and waiting only for the text, which will be ready within a few days. Other bulletins relating to the development of railways since 1830 (shown graphically), transportation upon the Mississippi River and its tributaries, transportation on the Pacific coast, and the final exhibits of water transportation will be ready for publication within the next ninety days.

The only part of the work of this division that will not be ready for publication within the next three months is the statistics of railways for the census year. In the compilation of these statistics a territorial classification has been adopted that will make the results entirely novel.

INSURANCE.

The work of this division will be completed during the present year. The statistics of the insurance business, compiled separately for each State and Territory, and showing the fire, ocean marine, and inland navigation and transportation business transacted, will form a series of five bulletins, one of which has been printed and two more are in the hands of the printer, while the remaining two will be ready for publication August 1. The remainder of the work, relating to the financial condition of insurance companies, will be finished by the middle of December.

Bulletins giving the business and financial condition of the level premium life insurance companies are in preparation, and will be issued shortly.

INDIANS.

The manuscript of the final report on the statistics and condition of Indians is nearly completed. The following bulletin has already been issued:

Bulletin No. 25.—Statistics of Indians: Enumeration of Indians living within the jurisdiction of the United States (except Alaska), taxed or taxable and untaxed.

Bulletins on the Six Nations of New York, the Pueblo Indians of New Mexico and the Moqui of Arizona, and the Cherokees of North Carolina will be issued within the next three months.

ALASKA.

Immediately on the return of Mr. Ivan Petroff from his second visit to Alaska the report will be written, and the publication will follow immediately. The following bulletins have been issued in regard to this Territory:

Bulletin No. 15—The Census of Alaska.

Bulletin No. 30—Alaska: Statistics of Population for 1890.

Bulletin No. 39—Wealth and Resources of Alaska.

Very respectfully,

ROBERT P. PORTER,
Superintendent of Census.

The SECRETARY OF THE INTERIOR.

REPORT

OF THE

SUPERINTENDENT OF CENSUS.

WASHINGTON, D. C., *December 2, 1891.*

SIR: I have the honor to call attention to the following paragraph which appeared in my report for the six months ended June 30, 1891:

In the last report attention was called to the necessity of an additional appropriation by Congress to complete the farms, homes, and mortgages work, and additional money will be required to complete the other work in accordance with the present plan. The exact amount of money necessary to complete the entire work will depend so much upon what this office may be able to accomplish during the next six months that I am unable at this time to state positively the amount.

I am not now prepared to venture upon any exact statement as to the cost of completing and printing the final volumes of the Eleventh Census, but in view of certain exaggerated reports that have gained circulation as to the cost of the Eleventh Census, when compared with the cost of the Tenth Census, I have deemed it advisable to lay before you the facts relative to the cost of both censuses.

At the outset it might as well be admitted that such a comparison of cost is apt to be misleading unless due allowance is made for the additional and expensive inquiries required of the Eleventh Census, and for the difference in the methods of collecting data. Comparisons, likewise, which take into consideration the cost of printing, are also unfair because such cost depends almost wholly upon the number of copies of the several reports ordered by Congress. The appropriation for printing, aggregating to the present time \$850,000 for the Eleventh Census, of which amount \$440,000 is still available, and of \$1,018,116, the amount appropriated for the Tenth Census for this purpose, will therefore be omitted in this comparison. The Fifty-first Congress ordered an elaborate investigation of the mortgage indebtedness of the country, and appropriated \$1,000,000 for the purpose. I had the honor to inform the two committees of Congress at the time that this work alone would probably cost \$1,500,000, and I am still of that opinion. The same Congress doubled the pay of supervisors and made an appropriation of \$75,000 to defray the cost of this wise action. In all comparisons with the Tenth Census these appropriations must be omitted. From the fact that about half the appropriation for printing remains unexpended I should think it safe to estimate that the cost of printing the Eleventh Census, as at present mapped out, will be, relatively speaking, less, certainly no more, than the Tenth Census. Of course this estimate is based on the law as it stands to-day. Should Congress

order larger editions of the several volumes the cost will be accordingly increased.

In all comparative statements of cost of the census the total appropriation of \$6,400,000 (*a*) must be used for the Eleventh Census and \$4,976,910 (*b*) for the Tenth Census; but even this comparison is hardly fair to the Eleventh Census for several reasons. In the first place, over \$100,000 has been expended upon inquiries, such as that relating to the names, organizations, and length of service of those who had served in the Army, Navy, or Marine Corps of the United States in the war of the rebellion, and who are survivors at the time of said inquiry, and the widows of soldiers, sailors, or marines, and other inquiries not included in the scope of the Tenth Census. To this must be added the amount of money unexpended November 30, 1891, \$176,695, making a total for comparative purposes of \$6,124,000. The per capita cost of the Eleventh Census up to this date has therefore been 9.78 cents and 9.93 cents (*c*) for the Tenth Census. In speaking of the cost of the Tenth Census, my predecessor, General Walker, said in the *Quarterly Journal of Economics*, June, 1888:

In undertaking a discussion as to what should be done toward the performance of this most important constitutional function, it will, perhaps, be well to recognize the fact that the preparations for the Eleventh Census are likely to be in some degree embarrassed by the financial and other misfortunes which befell its immediate predecessor. The successive deficiency appropriations for that work, the delays in the publication of some of the later volumes, together with the newspaper attacks upon the census, which became epidemical in 1882 and 1883, have created in the minds of most of those who have any impression at all on the subject the belief that the Tenth Census was extravagantly expensive. Yet no opinion could be more unfounded. The fact is that, considering the new ground covered, the Tenth Census was a marvel of cheapness. Even if we leave out all consideration of the great extent and variety of statistical work then for the first time undertaken, and treat all this as having cost absolutely nothing, we shall still find that the cost of the Tenth Census per capita of inhabitants exceeded that of the Ninth Census by far less than the ratio in which the cost of the Ninth Census exceeded that of the Eighth; (*d*) yet no one ever took exception to the expenditures of 1870-'72, and that work was finished to public satisfaction. A continuous progressive enhancement in the per capita cost of successive censuses is to be anticipated, even though the scope of enumeration be in no degree widened by reason of the continually expanding detail into which the traditional classes of statistics will inevitably be drawn under the ever-growing popular demand for local and minute information. On the other hand, if the scope of enumeration is to be widened, this must be paid for, and paid for handsomely.

The attempt to create the idea that the Eleventh Census has been "extravagantly expensive" will also fall to the ground upon a calm examination of the facts. The change in the method of collecting the data relating to manufactures, vital statistics, mines and mining, and in other divisions, by employing per diem special agents, has undoubt-

a APPROPRIATED FOR ELEVENTH CENSUS, EXCLUSIVE OF PRINTING AND FARMS, HOMES, AND MORTGAGES.

March 1, 1889.....	\$1,000,000
June 18, 1890.....	3,000,000
August 30, 1890.....	1,400,000
March 3, 1891.....	1,000,000

Total..... 6,400,000

b APPROPRIATED FOR TENTH CENSUS, EXCLUSIVE OF PRINTING.

March 3, 1879.....	\$250,000
April 20, 1880.....	125,000
June 16, 1880.....	2,960,000
March 3, 1881.....	500,000
January 28, 1882.....	540,000
August 7, 1882.....	245,000
August 8, 1882.....	80,000
Other appropriations.....	276,910

Total..... 4,976,910

c This per capita is correct; the discrepancy between this amount and the per capita for the Tenth Census given in note *d* is probably due to the omission in the journal quoted of certain appropriations.

d The cost per capita of inhabitants of the last four censuses, exclusive of printing and engraving, was as follows:

	CENTS.		CENTS.
Seventh Census, 1850.....	5.84	Ninth Census, 1870.....	8.71
Eighth Census, 1860.....	6.25	Tenth Census, 1880.....	9.68

edly increased the cost, and while the population of the country has increased 25 per cent during the decade, the agricultural, mining, and manufacturing interests have increased from 50 to 100 per cent, enhancing immensely the cost of getting the material; but the results are far more accurate and valuable. Including the amount paid enumerators and supervisors, the total cost of the collection of the data for the Eleventh Census has been \$3,600,385.36. Not only was the cost of collecting statistics of manufactures, mines and mining, vital statistics, etc., increased under the present act authorizing the Superintendent of Census to withdraw schedules from enumerators and use other and more efficient methods, but the pay for collecting the agricultural schedules was likewise increased by Congress.

Should the Eleventh Census therefore show, when completed, a slightly increased per capita cost, it will be due to the ever-growing popular demand for local and minute information, and to the better work, better methods, and better pay allowed for collecting manufacturing and agricultural schedules. And this increased per capita cost has not been peculiar to the Eleventh Census, the Eighth Census costing relatively more than the Seventh, the Ninth 2.46 cents per capita more than the Eighth, and the Tenth, as we have seen, 1.22 cents per capita more than the Ninth. Far from being extravagant, these facts will show that the Eleventh Census has been conducted with rigid regard to economy; that the large force, both in the field and in the office, has been subject to rules and restrictions, and obliged to do an amount of work that in some of the departments of Government work would have been regarded as excessive.

I have reason to believe that the census work proper can all be finished and ready for the printer by the close of 1892, and that the total cost, exclusive of printing and farms, homes, and mortgages, will not exceed \$7,000,000, or a trifle over 11 cents per capita as against a total cost of about \$5,000,000, or about 10 cents per capita for the Tenth Census, an increase of only one cent. This will finish up the work within the next twelve or, at most, eighteen months, in accordance with the original plan, without a single outright or even partial failure. These facts must put an end to all talk about an extravagantly expensive census. In brief, the cost of the Eleventh Census when completed, exclusive of printing and farms, homes, and mortgages, will be about one cent per capita more than the Tenth, an increase less than the increase between the cost of the Ninth and Tenth censuses. The printing, as now mapped out, will cost no more, possibly less, than the printing of the Tenth Census.

The work of the office is well advanced, and fourteen of the twenty-five divisions of the Census Office will have ceased to exist soon after the new year sets in, the work having been completed. Three other divisions will exist only in name, and in the aggregate employ but fifteen or twenty clerks. The office force for the coming year will be concentrated on population, agriculture, and manufactures. Vital statistics and statistics of special classes are well advanced, waiting for the detail tabulations of the population. Should Congress decide to continue the collection of the statistics of farms, homes, and mortgages, it can be completed by the close of 1892. The Printing Division and the Division of Final Results will continue until the last volume has gone to press.

The eight buildings which were at one time necessary to conduct the operations of the office will, on January 1, 1892, have been reduced to three, and after March 1 the entire office will be consolidated in two

buildings. The number of persons employed and the amount of the pay rolls have likewise decreased.

The following table gives the total number of clerks carried on the pay roll for each month since the date of my last report up to and including November, 1891:

Number of employes.

Months.	Total number on pay rolls.	Total amount of pay rolls.
July, 1891	2,330	\$147,106.80
August, 1891	1,310	105,901.85
September, 1891	1,095	75,607.35
October, 1891	1,053	69,795.80
November, 1891	963	61,623.85
Total		460,035.65
Total to June 30, 1891		2,303,221.00
Grand total to November 30, 1891		2,763,256.65

The population of the United States by minor civil divisions in one volume has been already published, also one hundred and fifty bulletins in six volumes relating to the various investigations. A seventh volume containing the extra bulletins will be issued before the year closes.

The final reports on the mineral industries of the United States, the statistics and condition of Indians, the statistics of transportation, and valuation, taxation, public expenditures and indebtedness, are in the hands of the printer; also Part I of the Compendium.

The tabulations of the insurance schedules, showing the assets, liabilities, and capital of the fire, marine, and insurance business of the United States, are in the hands of the Division of Final Results. Other reports are nearly completed and will soon be in the hands of the revisers, while much of the material for the Compendium has been prepared.

Very respectfully,

ROBERT P. PORTER,
Superintendent of Census.

The SECRETARY OF THE INTERIOR.

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Maine	56
Maryland	132
Massachusetts	24
Michigan	97
Minnesota	147
Mississippi	125
Missouri	119
Montana	130
Nebraska	126
Nevada	87
New Hampshire	21
New Jersey	69
New Mexico	129
New York	116
North Carolina	122
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ANNUAL REPORT

OF THE

COMMISSIONER OF PATENTS

FOR THE FISCAL YEAR 1890-1891.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., July 31, 1891.

SIR: I have the honor to submit the following report of the business of this office during the fiscal year ending June 30, 1891.

The following statement, prepared in the usual condensed form, exhibits the transactions in the office during the period specified, and compares them in important particulars with the corresponding transactions during four previous years. It also shows the balance now in the Treasury of the United States on account of the patent fund:

APPLICATIONS AND CAVEATS RECEIVED.

Applications for letters patent.....	39, 696
Applications for design patents.....	1, 146
Applications for reissue patents.....	111
Applications for registration of trade-marks.....	1, 855
Applications for registration of labels.....	808
Caveats.....	2, 333
Total	45, 949

PATENTS GRANTED AND TRADE-MARKS AND LABELS REGISTERED.

Letters patent granted (including reissues and designs).....	25, 307
Trade-marks registered	1, 744
Labels registered	289
Total	27, 340

PATENTS WITHHELD AND PATENTS EXPIRED.

Letters patent withheld for nonpayment of final fee	3, 514
Letters patent expired	12, 383

RECEIPTS AND EXPENDITURES.

Receipts from all sources.....	\$1, 302, 794. 59
Expenditures (including printing and binding, stationery, and contingent expenses).....	1, 145, 502. 90
Surplus.....	157, 291. 69

COMPARATIVE STATEMENT.

	Receipts.	Expenditures.
June 30, 1887.....	\$1,150,045.05	\$981,644.09
June 30, 1888.....	1,122,994.83	953,730.14
June 30, 1889.....	1,186,557.22	999,697.24
June 30, 1890.....	1,347,203.21	1,081,173.56
June 30, 1891.....	1,302,794.59	1,145,502.90

INCREASE IN THE NUMBER OF APPLICATIONS FOR PATENTS, INCLUDING REISSUES, DESIGNS, TRADE-MARKS, AND LABELS.

June 30, 1887.....	38,408
June 30, 1888.....	37,769
June 30, 1889.....	39,702
June 30, 1890.....	43,810
June 30, 1891.....	43,616

NUMBER OF APPLICATIONS AWAITING ACTION ON THE PART OF THE OFFICE.

July 1, 1887.....	7,601
July 1, 1888.....	7,227
July 1, 1889.....	7,073
July 1, 1890.....	6,585
July 1, 1891.....	8,911

BALANCE IN THE TREASURY OF THE UNITED STATES ON ACCOUNT OF THE PATENT FUND.

June 30, 1890.....	\$3,790,556.28
June 30, 1891.....	157,291.69
Total.....	<u>3,947,847.97</u>

It will be seen from the foregoing that the number of applications for patents increased at an almost phenomenal rate during the year ending June 30, 1890, and that substantially the same rate was kept up during the year last passed. During the two years the office has been called upon to consider and dispose of nearly ten thousand cases more than would have been considered if the number of applications had not exceeded the average (38,735) for the years 1888 and 1889. The additional duty thus imposed has borne heavily upon the examining force, and it is to its credit that without any increase in its numbers the number of cases on hand for action at the close of the fiscal year was so slightly in excess of that of the former year. It was in consequence of this addition to the work to be done by the Patent Office that in my report for the last fiscal year I asked for an increase in the examining corps and a corresponding increase in the clerical and laboring force, and directed attention to the fact that the pace kept up and rendered necessary by the very great increase in the number of applications for patents was inconsistent with the high degree of care in conducting examinations which the patent system calls for when properly administered. At the same time I expressed the opinion that the number of examining divisions should be increased from thirty to thirty-two, and that the additional force of examiners to equip the new divisions should include two principal examiners and at least fifteen assistant examiners in the various grades.

INCREASED FORCE.

I am now pleased to be able to report that the last Congress took action in accordance with the views thus expressed, by providing for

two new examining divisions and for a substantial increase in the examining corps, consisting of two principal examiners and eight assistant examiners; also, that the clerical force was correspondingly strengthened. The inventors of the country are certainly to be congratulated upon this favorable action of Congress.

ADDITIONAL ROOM.

The last Congress also took action intended to provide the Patent Office with the amplest room and facilities for the conduct of its business. At first a project received considerable attention which contemplated the building of an "annex" across the inner court of the Patent Office building. It was understood that by the erection of such an annex a large number of rooms could and would be furnished for the use of the Patent Office. This project, however, was set aside in recognition of the fact that the Patent Office was entitled to the rooms occupied in recent years by the General Land Office, so far as these rooms were needed for the transaction of its business. In recognition of this fact, also, an appropriation was made of the sum of \$16,000 to provide rented quarters for the Land Office. The purpose of this appropriation was to relieve the Patent Office, and this Bureau confidently awaits the carrying into effect of the policy indicated by the action of Congress. When the building now understood to be in course of preparation for the use of the Land Office shall have been properly equipped and the Patent Office shall have been provided with the adequate room contemplated by the legislation of Congress, it can no longer be said that the Government exacts a special tax from the inventors of the country and refuses to furnish proper facilities for transacting their business. Permit me, in this connection, to direct attention to the following from my report to Congress for the calendar year ending December 31, 1889:

The first need of the office is additional room. I could afford to be silent upon this subject, in view of the urgent words on behalf of the Patent Office of the honorable Secretary of the Interior in his recent report, if it were certain that my silence would not be misinterpreted. The present situation is most deplorable. Almost, literally speaking, the Patent Office is crowded into a corner of the noble building which was paid for by its patrons and which bears its name.

The necessity for more room and better facilities has been urged upon Congress by Commissioner after Commissioner, and has become more imperative every year. As long ago as 1882 Mr. Commissioner Marble asked for thirty additional rooms. Mr. Commissioner Butterworth, in his report for 1884, called attention to the utter inadequacy of room and facilities for conducting the business of the Patent Office, and to the fact that the health of the employes had been impaired and death had resulted from damp and overcrowded rooms. In his report for 1885 Mr. Commissioner Montgomery said that it was "not extravagant to assert that every room in the building could be advantageously used to-day by this Bureau." My immediate predecessor also urged upon Congress the necessity for relief. During the past year it has been found almost impossible to find space for the storage of current copies of patents as they were produced from week to week.

I can add nothing to what has been said by my predecessors except perhaps to enter a little more into detail in setting forth the overcrowded condition of the office. The room occupied by Division 28 has 19 by 23 feet of floor-space. In it are 9 desks, occupied by 9 men and women. In addition to the desks are book and file cases arranged against the wall and extending upon all sides of the room. In the room occupied by Division 5 the floor-space is 35 by 20 feet in extent. In it are 10 desks, occupied by 10 persons. Book and file cases extend around the room on every side. These instances differ only in degree from nearly all the rooms devoted to the business of this Bureau.

The subject to which I am now directing attention is one in which the deepest interest is felt by inventors and by the very large portion of the American people who are directly or indirectly interested in inventions. There is a widespread feeling that the large excess of fees over expenses should be devoted to affording facilities for the conduct of the business of the office. There can be no doubt whatever

that this feeling is a reasonable one. No one, I think, has ever suggested that the Patent Office should be made a permanent source of revenue for the general purposes of the Government. I urgently request that relief be afforded for the overcrowded condition of the Patent Office.

I also expressed my views upon the subject of additional room in my last report to Congress as follows:

The first need of the Patent Office is additional room. During the past year the utmost effort and ingenuity have been rendered necessary in order to find space even for copies of patents as they have been produced from week to week. The income from these copies during the past year has been upward of \$60,000. They have been stored in various parts of the building, upon different floors, in different halls and corridors, and only by the most careful systemization is a searcher, however experienced, enabled to know in what hall, corridor, or cranny he must look in order to find a particular patent. During the past year the office has been compelled to appropriate to other uses one of the rooms occupied by inventors and their attorneys for the purpose of inspecting their pending applications, and the consequence is that the remaining room, which has only 23 feet square of floor-space, is overcrowded and every day occupied by more than 30 persons at a time.

An effort is now being made to restore to the inventors and their attorneys the use of the other room formerly occupied by them. This will be accomplished, if at all, by walling off a space in the already crowded model halls. The scientific library, containing about 60,000 volumes, is crowded into disconnected rooms and galleries appropriated from one of the model halls. The rooms of the examining divisions are overcrowded; some of them are unhealthy at best; others are rendered unhealthy by their crowded condition. From all parts of the office arises a daily demand for additional room, which can not be supplied, but which must nevertheless be supplied if the Patent Office is to do its work at all. It is nearly ten years since my predecessors directed attention to this imperative need. Not a report has been made to Congress during the intervening decade which did not dwell upon the necessity for additional room, and with increasing emphasis from year to year. Meanwhile the amount of work annually transacted has nearly doubled; meanwhile the records and copies have vastly accumulated; meanwhile the number of rooms and the extent of space occupied by the Patent Office have become gradually less and less.

During the last six years the patrons of the Patent Office have paid into the Treasury over a million of dollars in excess of every expenditure of every kind, either by the Patent Office or by the Department of the Interior for the benefit of the Patent Office. The net income of the present year is greater than it was during the year before. Last year it was greater than during the prior year. The inventors of the country can not understand why their money is taken while adequate facilities are denied. The policy of making the Patent Office a permanent source of revenue—a bureau of taxation for the general purposes of the Government—has never been advocated, so far as I know, by any one. The time will soon arrive when it will be impossible to discharge the functions of this Bureau unless some provision is made to afford relief for its overcrowded condition, and I earnestly request that that relief may be afforded.

The inventors of the country are certainly to be congratulated that this deplorable condition of things is about to be done away with.

SALARIES.

I respectfully ask that attention be given to what was said in my last report upon the subject of increased compensation to examiners. The salary of the principal examiners (\$2,500) has not been increased in more than forty years.

The inequality between the salaries of the lowest grade of copyists in this Bureau and of the corresponding grade in the other Bureaus of the Interior Department, to which I directed attention in my last report, still continues to exist. These copyists, seventy-six in number, receive \$720 per year. The work which is done by them calls for skill and care, and the Commissioner is responsible, upon his bond, for the accuracy of the copies made by them and certified by him. It is not surprising that such copyists should seek transfer to other bureaus, thereby depriving

this office of their services as soon as they become experienced. Besides, when vacancies occur considerable difficulty is experienced in filling them. In one instance a vacancy was caused by resignation as long ago as May 27. Two successive selections have been made for the place from lists certified by the Civil Service Commission, and in both instances the appointees declined on account of the small salary. The place is still unfilled. Several instances of a similar kind have occurred during the past year, and similar cases may be expected so long as Congress permits the present discrimination against the Patent Office to continue.

The salary of the chief clerk of the Patent Office, as prescribed by the Revised Statutes (see section 440), is \$2,500 per year, and Congress at its last session appropriated that amount for his salary for the fiscal year of 1891-'92; but through inadvertence in the engrossing of the bill, after its passage upon report of the conference committee (see p. 4012, No. 78, Vol. 22, Congressional Record), the correct amount was not inserted, although the total amount appropriated for the salaries for the officials of the Patent Office includes the sum of \$2,500 for the chief clerk. It is therefore recommended that Congress be asked for such remedial legislation as may be necessary to carry into effect the appropriation of the last Congress and secure to the chief clerk the salary intended for the present fiscal year.

LEGISLATION.

In my last report I directed attention to needed legislation. In particular, it was suggested that the head of the office should be released from the duty of hearing appeals from the examiners-in-chief; that the members of the latter tribunal should receive the same salary as the United States district judges and be required to possess the same qualifications; that the Commissioner should have the power to grant new trials and rehearings in proper cases; but that appeals, when taken from the decisions of the examiners-in-chief, should go directly to the supreme court of the District of Columbia.

It was also suggested that section 4887 of the Revised Statutes ought to be so amended as not to impose a penalty upon American inventors who patent their inventions abroad before their American patents are granted.

Also, that interstate trade-marks—that is to say, trade-marks used in connection with traffic between the States—should be registered in the Patent Office in the same manner and for the same reason governing the registration of trade-marks used in connection with foreign commerce and commerce with Indian tribes.

Also, that sections 4885 and 4935 of the Revised Statutes, relating to the payment of patent fees, should be amended so as to avoid certain practical difficulties arising when money is paid for the Patent Office to other officers than the Commissioner of Patents, and the latter officer is suffered to remain in ignorance of the fact that payment has been made until more than six months has elapsed after the application has been allowed and notice thereof sent to the applicant. The reasons for the foregoing changes in the law still continue to exist.

In the same report it was recommended that a change be made in the statute so as to cause the price for certified copies of printed matter to be reduced. This suggestion was acted upon by Congress, and the price now permitted to be received for certified printed matter is the price at which the printed matter alone would be furnished, the fee for the certificate being added thereto.

PATENT CENTENNIAL.

The present year has been rendered memorable by the celebration in this city of the beginning of the second century of the American patent system. The programme of exercises, as published in the Official Gazette for March 31, was carried out on the 8th, 9th and 10th days of April, substantially as announced, and will result, to an extent that can not now be measured, in a widespread and intelligent interest in all that concerns inventors and inventions.

Very respectfully, your obedient servant,

C. E. MITCHELL,
Commissioner.

The SECRETARY OF THE INTERIOR.

REPORT

OF THE

COMMISSIONER OF RAILROADS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF COMMISSIONER OF RAILROADS,
Washington, D. C., November 1, 1891.

SIR: In compliance with the statutory requirements of the act creating this Bureau (20 Stat., 169, sec. 3) I have the honor to submit the following report in regard to the Bureau and its operations and of the condition of the property, business, and accounts of the several railroad companies coming under its supervision which have made such reports as have been called for under the law.

The operations of the railroads for the past year as reported to this office show a decided improvement as to the volume of business over the reports for several preceding years. Owing, however, to continually declining rates of traffic, brought about mainly by increased competition, the net earnings do not keep pace with the gross receipts. The net earnings of the bonded roads, in which the Government has a direct pecuniary interest, and from which earnings it looks for reimbursement for subsidies granted in aid of their construction, show a slight decrease from last year. The exact comparative figures are presented in tabulated form on other pages of this report.

The railroad prospects for the current year are especially gratifying. The crops in all sections of the country, and particularly in the West, are of unusual abundance. A more generally fruitful year has never been experienced. Mining, lumbering, and manufacturing operations have greatly increased and nearly all branches of business show an uncommon activity.

A careful inspection has been made of all the bonded and many of the land-grant roads during the past year by the engineer charged with that duty. His report to the Commissioner gives full details as to the physical condition of the various roads coming under the jurisdiction of this office. It will be found by a perusal of the engineer's report (Appendix No. 1) that the roads are being rapidly improved by replacing iron rails with steel, putting in stone and iron culverts and

bridges in place of wooden ones, reducing grades, ballasting, building new and enlarging old machine shops, adding to terminal facilities, increasing and improving equipment, etc. These improvements, where they are made upon the bonded roads, are of especial value to the Government, as they not only increase the earning capacity of the roads, and thereby the amount of net earnings to be paid in liquidation of the Government debt, but they add largely to the value of the property, and so increase the Government security and render full final payment of the claims of the United States more certain.

The bookkeepers of this office have visited the headquarters of the various bonded roads and thoroughly examined their books of account so as to determine the exact sums due the Government. As under existing laws the bonded roads are required to pay to the Government a percentage of their net earnings, it is important to see that the net earnings are correctly ascertained and reported.

Under a recent decision of the United States Supreme Court (138 U. S. R., 84) it was held that in ascertaining net earnings upon which a percentage is to be paid to the United States, sums expended for betterments and improvements, whereby the capital of the roads is permanently increased, can not be regarded as current expenses to be deducted from the gross receipts in ascertaining net earnings. This decision was in reversal of a decision of the Court of Claims (20 C. Cls. R., 70) in which it was held that the sums expended for new construction and new equipment were in the nature of current expenses and might properly be deducted from the gross receipts in determining the amount of net earnings. It has always been the contention of this Bureau that the sums expended for betterments and improvements ought not to be deducted from the gross receipts in order to rightly ascertain the amount of net earnings, but the accounts have been made up under the decision of the Court of Claims referred to. The decision of the Supreme Court has made it necessary to restate the accounts of the bonded roads in so far as they come under the provisions of the Thurman act. The restatement dates from the time the act went into effect. By referring to this restatement, to be found upon another page, can be seen the amounts of gross earnings, the amounts of expenses properly deducted, the Government requirements and the payments made in satisfaction of them for each year since the passage of the Thurman act. It will be seen by the footings of this table that the Union and Central Pacific roads are in arrears up to December 31, 1890, the end of the calendar year for which settlements have been made, as follows: Union Pacific, \$525,060.49; Central Pacific, \$527,256.21. It is due, however, to the companies named to state that they have transportation accounts for services rendered the Government, now in the hands of the accounting officers of the Treasury, in sufficient amounts to equal or exceed their apparent indebtedness. As a matter of fact, therefore, they have fully complied with the requirements of law. The constant increase in the debts due

the Government from the bonded roads is not due to any failure of the railway companies to fully meet the Government requirements and to pay each year all that they are legally required to pay. The fault rests in the laws themselves. The percentage of net earnings required by law to be paid yearly, in discharge of the Government obligations, does not create a sum equal to the accruing interest on the subsidy bonds. Hence the debt increases yearly. What remedy can be applied to correct this unfortunate condition of affairs it is for the wisdom of Congress to determine.

This Bureau has frequently recommended the enactment of a law providing for the funding of the Government debts of the bonded roads. These recommendations have been approved by successive Secretaries of the Interior and Treasury Departments, and this plan of settlement was indorsed by President Cleveland in a message to Congress. No final legislative action has been had, although various bills have been submitted in each house of Congress and been fully discussed and considered. The Senate committee, through its chairman, Mr. Frye, reported unanimously in favor of the passage of a Senate bill, but no action was taken upon the report. The House committee was divided in its report, the majority favoring and a minority reporting against the passage of a bill. The bills in the two Houses were similar in their provisions. They provided that the time of payment of the Union Pacific indebtedness should be extended through a period of fifty years at 3 per cent interest, and the indebtedness of the Central Pacific extended through a period of seventy-five years at 2 per cent interest. The payments provided for were to be of fixed dates and amounts, represented by bonds maturing each six months for the periods named. In the case of each road it was provided that additional security be given for the payment of the bonds proposed to be issued in settlement of the Government indebtedness.

It was understood at the time of the introduction and consideration of these bills that they were satisfactory to the railway companies interested, and that if enacted into law the companies would accept the law and the debts be adjusted and funded in accordance with its provisions. The Union Pacific management changed hands after the last meeting of the stockholders, and I am informed by the new president that the bills I have referred to are not satisfactory to that company. It would be useless to pass any law looking to the settlement of their debts to the Government not approved by the companies interested, as it has been decided by the Supreme Court that the companies are not liable upon any part of their indebtedness until the maturity of the subsidy bonds. As to what terms of settlement, if any, the railway companies have to propose I am not advised. I am informed, however, that they desire a speedy settlement, providing for payments at fixed dates and amounts.

In view of the fact that the subsidy bonds are so soon to mature,

rendering due the entire Government debt, principal and interest, it would seem to be important that Congress take early action in the matter. It is a vexed question to settle and there is no hope of its easier solution by delay. It will be useless to provide such conditions as will be impossible for the companies to perform. The Government should not only deal justly by itself but by the railroad companies as well, and by the great commercial and other public interests with which they are so closely allied.

A careful study of the subject in all its relations and effects should be made before entering into any negotiations with a view to a definite settlement. If a harmonious and equitable adjustment can be had it would be in accordance with simple, practical business prudence. I would not consent to the weakening of any security which the Government now has for a full return of its advances. Whatever new arrangement, if any, shall be made the provisions of the present laws should be held in reserve to be enforced in the event of failure on the part of the companies to comply strictly with the new contract.

There ought to be no conflict between the United States and the owners of the bonded roads, and, in my judgment, there is no good reason why there should be. The Government has loaned its money and its credit and is entitled to its pay. The debtor companies acknowledge their obligations and profess to be anxious to cancel them as fast as possible without embarrassing their general business. Both parties desire a settlement and, by a proper effort, it seems certain that an equitable one may be effected. With the Government the time of payment is of little consequence, but security is everything.

I have little doubt of the ability of the principal bonded roads to eventually meet all their obligations to the Government, but the sum of their debts is apparently beyond possibility of payment in money at their maturity. Some plan of refunding must be devised in order to give them time. In fixing upon such a plan all the varied and complex questions surrounding the situation should be fully and fairly considered. The course of the Government should be that which any practical business man would pursue with a private debtor in a similar situation. An estimate should be made of the debtor's property and business, and thus should be ascertained what installments and at what times he could be reasonably expected to pay. It is of the first importance to the Government, simply in its relations as a creditor, to see that no action is taken that will result in hindering the conduct and development of the business or injuring the credit of the companies indebted to it, for in so doing it would impair the value of the securities upon which it depends for reimbursement.

The lien of the Government should remain paramount and unaffected by any event and strengthened whenever possible, but under that condition the companies should be allowed the fullest liberty to improve and extend their systems, so that thereby they might meet all compe-

tion and contingencies and be as free as their rivals to occupy new territory, secure important connections, and thus protect and increase their revenues. I am sure that a prudent business man, in estimating what extension of time should be given and fixing the amounts to be paid, would consent to such reasonable conditions and allow such margins as would permit his debtor to profitably continue his business. The Government, in its capacity as a creditor of the Pacific railroads, should be careful to see that the relations of creditor and debtor, as usually understood, be observed and maintained. Justice and expediency unite in suggesting this line of action.

It is the especial province of this Bureau to look after the physical and financial conditions of the railroads coming under its supervision, and particularly to see that the bonded roads pay annually into the Treasury of the United States such sums as, under existing laws, will meet the Government requirements.

Congress in its wisdom may profitably consider the relations existing between the Government and the Pacific railroads in a broader sense than the simple relation of debtor to creditor. Very many good reasons can be given showing why the greatest public good will not be attained by insisting that the bonded roads must pay these Government debts in the shortest period of time possible. I have already said, and the proposition seems indisputable, that any legislation tending to hamper the needed improvements or extensions of the roads and cripple their business would reduce their values and impair the Government security. But that would not be the worst result flowing from too restrictive legislation. If too stringent terms of payment are insisted upon they can only be complied with by the companies neglecting to make all needed improvements and extensions on their lines and withholding all dividends from stockholders, or by levying extortionate rates of transportation upon their traffic. In no other ways could the companies meet the obligations imposed upon them. Sensible men will hardly wish to see either of these expedients resorted to.

The Pacific railroads, with their numerous collateral lines, traverse vast empires in their extent. They already reach, or are projected into, States and Territories in which are contained all the resources from the development of which flows individual and national prosperity and wealth. These railroad companies were given their immense subsidies of moneys and lands not only that a great transcontinental route might be established but that the unsettled and inaccessible regions along their proposed lines might be profitably developed. Great as were the advantages derived by the Government and the people through having railroad connection established at so early a date between the Atlantic and the Pacific oceans, yet infinitely greater benefits have accrued from the opening of the farms and forests and mines that now pour their wealth into the channels of trade at the local stations and along the connecting lines of the Union and Central Pacific Railways. The

through trade is small in amount and of little importance compared with the great sum of local traffic. This is especially true with reference to the Union Pacific.

Frequent criticisms, allegations, and complaints have come to this Bureau, been made to the Secretary of the Interior, to the President and Congress, and through the public prints in regard to the policy pursued by the Union Pacific in aiding, by guaranties of their bonds and stocks, other companies whose roads are operated in connection with the Union Pacific system. It has been persistently urged that such guaranties were in violation of law and were made with intent to defraud the Government. These charges, like many others made against the management of the Pacific roads, prove to be altogether groundless and unjust. It would be almost impossible to emphasize too strongly the value to the Union Pacific of its branch lines. It is alone through them that the operations of the main line, on which the Government holds a lien, have been made profitable. Some of the branch lines may not be profitable in themselves, but as feeders to the main line they have a value which does not appear on their own balance sheets. The transcontinental business, which was large and lucrative a few years ago, is now divided among many competitors, and is almost insignificant as to amount and profit. It is the local business alone, most of which is contributed by the branch lines, that brings profit to the main line. Were it not for these "feeders" the Union Pacific would yield no net earnings whatever, and the property would not be worth the amount of its first mortgage bonds.

It seems to be desirable beyond controversy that no conditions of settlement be imposed upon the bonded roads that will prevent their free operations and the making of such improvements on the main lines and extensions of tributary lines as will be necessary to protect their traffic from the continually increasing competition. While it is important that the Government take such action as shall render secure the final payment to it of all moneys due from the subsidized roads, it is of still greater importance that the debtor companies be left free and with the ability to build or acquire such branch lines and secure such valuable connections as will best protect their present business and insure their future prosperity. Otherwise they will be seriously handicapped in the fierce struggle for territory and new traffic, and the country tributary to them will suffer great loss and be retarded in its development through the lack of needed transportation facilities.

If the facts of the situation give warrant to the foregoing suggestions, then the question arises as to what means can best be employed in order to correctly ascertain what terms of settlement should be proposed that will be most likely to secure the debts due the Government and furnish the least embarrassment to the railroad companies. A correct answer can not be given to this question until full information is had as to all the present affairs and future prospects of the railroad companies.

Before naming fixed sums to be paid and their dates of payment the ability of the companies to meet the requirements must be ascertained. It is no use to pass a refunding act unless the railroad companies affected agree to it. They can not be legally compelled into acquiescence. The manifest thing to do is to open, through duly authorized agents, negotiations with the railroad companies and see if some just plan of settlement can not be amicably arranged.

Congress is a large, unwieldy, and a busy body. Many important subjects constantly press upon the time and attention of its members. There are at present no means of information available by which members, without the employment of more time than is at their command, can become fully advised upon the relations of the bonded railroads to the Government. No department of the Government, so far as I am advised, is informed as to what the companies desire and what precise terms of settlement they will accede to. It is necessary to know this before any legislation is attempted. It is useless to pass a law that will prove inoperative by reason of the refusal of the railroad companies to accept it.

The Government and the railroad companies should get together. They can no more negotiate advantageously at arms' length than can individuals. If negotiations could be opened, plans suggested, all the facts of the situation fully understood, then it is likely that a satisfactory adjustment might be had. It is quite certain that a settlement can not be effected in any other way. There is not much time to spare. The first series of the subsidy bonds mature in a little over three years. Should a settlement be deferred until the debts fall due there is great danger that such hasty and ill-considered action may then be taken as will work injury to the interests of both the railroad companies and the Government.

It is my opinion, formed after a careful consideration of the whole subject, that the most practical way in which to proceed is for Congress to authorize the Secretary of the Interior or the President to appoint a commission, to consist of not more than three members, all of whom shall be persons in Government employ, to thoroughly investigate the subject, confer with the railroad companies, and make an early report of their conclusions. It is impossible for individual members of Congress, or even Congressional committees, to find the necessary time to fully investigate the subject so that they may act upon it intelligently. Such a commission as I have suggested would be almost entirely inexpensive. I have no doubt that the railroad companies, although I have no intimations from any of them on the subject, would cheerfully meet all the expense such a commission would incur.

If the commission were unable to agree upon such terms of settlement as would be satisfactory to both the railroad companies and the Government, no expense would have been created and no possible harm done. If, on the contrary, such an adjustment could be agreed upon

as would secure to the Government the moneys due to it and not seriously affect the business or credit of the railroads, or burden the traffic and hinder the development of the sections tributary to them, a great public good would be accomplished. Surely the magnitude of the interests involved in this controversy may well command the early attention of Congress.

UNION PACIFIC RAILWAY COMPANY.

This company was formed January 26, 1880, by the consolidation of the Union Pacific Railroad Company, the Denver Pacific Railway and Telegraph Company, and the Kansas Pacific Railway Company. The mileage of the road June 30, 1891, was as follows:

	Miles.
Council Bluffs, Iowa, to Ogden, Utah Ter.....	1, 033. 46
Kansas City, Mo., to Denver, Colo	638. 91
Denver, Colo., to Cheyenne, Wyo.....	104. 06
Leavenworth, Kans., to Lawrence, Kans	31. 93
Council Bluffs, Iowa (Broadway), to junction main line	1. 76
Omaha, Nebr. (Bridge Junction), to old initial point.....	3. 95
Almy Junction, Wyo., to Mine No. 7.....	3. 76
Armstrong to Wyandotte, Kans.....	2. 08
Detroit to Enterprise, Kans.....	1. 95
Total owned.....	1, 821. 86

The company also controls and operates seventeen branch lines, aggregating 5,846.15 miles in length, making a total of 7,668.01 miles in the system. There are also seven other railroad companies whose lines aggregate 674.46 miles in length, in which the Union Pacific Railway Company has a proprietary interest, but the railroads belonging to which are not included in the system.

The portions of the road which were constructed by the aid of a subsidy in bonds and are subject to the requirements of law with respect to the annual payment to the Government of a percentage of earnings are as follows: Bridge Junction, Omaha, Nebr., to Ogden Station, Utah T., 1,029.4840 miles; Ogden Station, Utah Ter., to junction with Central Pacific Railroad (leased and operated by the Central Pacific Railroad Company), 5 miles; Kansas City, Mo., to a point near Boaz, Kans., 393.9425 miles.

The subsidy bonds issued to this company amount to \$33,539,512, the Union division having received \$27,236,512 and the Kansas division \$6,303,000. The United States had paid in interest thereon the sum of \$47,186,149.26, and there had been repaid by the company in transportation services and cash, as shown by the books of the Treasury Department, \$28,844,059.53, which made its liability to the Government June 30, 1891, amount to \$51,881,601.73. The excess of interest paid by the United States over all credits amounted to \$18,342,089.73. The amount found due from this company under the acts of 1862, 1864, and 1878 for the year ending December 31, 1890, was \$1,169,176.83, whilst

the United States paid during the corresponding period the sum of \$2,012,370.72, interest on the bonds issued to this company.

There are 17.25 miles of double track and 542.75 miles of sidings on the main line. Steel rails are laid upon 1,806.53 miles of track and iron rails upon the remainder. The ballast consists of 27.09 miles of stone, 26.81 miles of gravel, 7.03 miles of burnt clay, 34.29 miles of cinders, and the remainder of earth. There are 644 miles of fencing and 1.19 miles of snow sheds.

During the year 17,191.65 tons of steel rails were laid, at a cost of \$604,879.40, and 2,775.45 tons of iron rails at a cost of \$72,391.41, and there were placed in the track 686,152 cross-ties; at a cost of \$365,490.27. The total expenditures for additions and betterments to railway during the year amounted to \$1,516,290.55, and for new equipment to \$980,304.61.

The equipment consists of 534 locomotives, 510 of which are equipped with Westinghouse automatic brakes; 13 dining, 67 sleeping, 31 chair, 132 first class, 8 second class, 68 emigrant, 43 mail and mail combination, 48 baggage, 12 express, 3 combination baggage and express, and 14 officers' cars, making a total of 439 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller platforms. In the freight service there are 6,103 box, 1,081 stock, 1,803 coal, 471 flat, 124 combination stock and box, 427 refrigerator, 796 fruit, and 228 caboose cars, making a total of 11,033 cars in this service, 6,780 of which are equipped with Westinghouse brakes. There are 50 refrigerator and 182 fruit cars equipped with Miller platforms. In road-repair service there are 13 derrick, 345 dump, gravel, and construction and 27 boarding cars. The foregoing includes the following equipment held in trust by the American Loan and Trust Company of Boston, Mass., as trustee: 159 locomotives, 23 chair, 14 first class, 34 emigrant, 6 mail and mail combination, 15 baggage, 2 combination coach and baggage, 1,009 box, 283 stock, 611 coal, 700 furniture, 350 refrigerator, 500 fruit, 51 caboose, and 101 dump, gravel, and construction cars.

The company reports that to June 30, 1891, there had been patented to it by the United States 7,994,195.19 acres of land and that it had disposed of 13,530,048.20 acres, the total cash receipts from all sources amounting to \$34,340,465.48. There remained outstanding on account of time sales the sum of \$9,256,748.43.

The road-bed, track, bridges, buildings, and equipment of the main line between Omaha, Nebr., and Ogden, Utah Ter., and between Cheyenne, Wyo., and Denver, Colo., were inspected by the engineer of this Bureau in April last. The Kansas Division, between Kansas City, Mo., and Denver, Colo., was inspected by him in May, 1891. The entire line has been maintained in excellent condition and numerous important additions and improvements have been made, the details of which will be found in Appendix No. 1.

The following statements show the financial condition of the company June 30, 1891, the amounts found due under the acts of 1862, 1864, and 1878, and other statistics pertaining to the company.

Comparative statement of the funded debt of the Union Pacific Railway Company June 30, 1891 and 1890.

Class of bonds.	Term of bonds.		Rate of interest.	Amount of bonds outstanding.		Difference.		Lien on—
	Years.	Date of maturity.		June 30, 1891.	June 30, 1890.	Increase.	Decrease.	
<i>Union Pacific Railroad Company.</i>								
Union Pacific, first mortgage	30	1896-1899	6	\$27,229,000.00	\$27,229,000.00			Road and franchise Omaha to Ogden.
United States subsidy, second mortgage.	30	1896-1899	6	27,236,512.00	27,236,512.00			Do.
Sinking-fund mortgage, coupon	20	1893	8	5,542,000.00	7,361,000.00		\$1,819,000.00	Road and franchise Omaha to Ogden, third mortgage; granted lands, second mortgage.
Sinking fund mortgage, registered	20	1893	8	620,000.00	6,742,000.00		6,122,000.00	Bonds of branch lines held by trustees.
Collateral trust, 6 per cent.	29	1908	6	3,931,000.00	4,035,000.00		104,000.00	Omaha Bridge, first mortgage.
Omaha Bridge	25	1896	8	887,000.00	1,032,000.00		145,000.00	Granted lands.
Land-grant mortgage	20	1887-1889	7	9,000.00	10,000.00		1,000.00	
<i>Kansas Pacific Railway Company.</i>								
Eastern division, first mortgage	30	1895	6	2,240,000.00	2,240,000.00			Road and income, Kansas City to a point 140 miles west.
Middle division, first mortgage	30	1896	6	4,063,000.00	4,063,000.00			Road and income, 140th-mile post to 394th-mile post.
United States subsidy, second mortgage.	30	1895-1898	6	6,303,000.00	6,303,000.00			Road and franchise, Kansas City to 394th-mile post.
Denver extension, first mortgage	30	1899	6	5,887,000.00	5,935,000.00		48,000.00	Road and lands, 394th-mile post to Denver.
Leavenworth branch, first mortgage	30	1896	7	18,000.00	18,000.00			Leavenworth branch.
Income	50	1916	7	22,500.00	45,950.00		23,450.00	Income.
Income, subordinated	50	1916	7	19,000.00	63,250.00		44,250.00	Do.
Consolidated mortgage	40	1919	6	12,570.00	12,710.00		140,000.00	Blanket mortgage, 779 miles of road and 394 miles of land grant.
Denver extension, coupon certificates	12	1886	6	385.00	385.00			Income.
<i>Denver Pacific Railway and Telegraph Company.</i>								
Cheyenne branch, first mortgage	30	1899	7	4,000.00	8,000.00		4,000.00	Cheyenne branch, road and lands.
<i>Union Pacific Railway Company.</i>								
Trust, 5 per cent, coupon	24	1907	5	4,990,000.00	5,113,000.00		123,000.00	Bonds of branch lines held by trustees.
Trust, 5 per cent, registered	24	1907	5	18,000.00	18,000.00			Do.
Omaha Bridge renewal, second mortgage.	21	1906	5	734,000.00	589,000.00	\$145,000.00		Omaha Bridge.
Equipment trust, series A	1 to 10	1888-1897	5	502,000.00	573,000.00		71,000.00	Equipment held by the American Loan and Trust Company of Boston, as trustee.
Equipment trust, series B	1 to 10	1889-1890	5	1,473,000.00	1,684,000.00		211,000.00	
Equipment trust, series C	1 to 10	1891-1900	5	389,000.00		389,000.00		
Collateral trust, 4½ per cent.	29	1918	4½	2,058,000.00	2,071,000.00		13,000.00	Bonds of branch lines held by trustees.
Total funded debt				106,745,397.00	115,080,097.00		8,334,700.00	

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$19,204,825.79
Dividends on stocks of other companies.....	219,826.84
Interest on bonds of this and other companies.....	1,046,851.87
Interest and income from miscellaneous investments..	332,227.95
Receipts of the land department and trust income....	703,311.46
Interest on sinking fund of company.....	418,318.02
Miscellaneous land receipts.....	20,715.63
Interest on Kansas Pacific consolidated bonds repaid by trustees.....	758,400.00
Total.....	\$22,704,477.56

EXPENDITURES.

Operating expenses and taxes.....	12,237,390.85
Interest on funded debt.....	4,424,647.93
Interest on other debt.....	699,512.94
Sinking fund requirements—company.....	472,922.50
New construction.....	1,516,290.55
New equipment	980,304.61
Expenses of the land department, taxes, etc.....	257,358.64
United States requirements*.....	1,081,153.43
Premium on sinking fund 8 per cent bonds bought....	215,269.88
Interest paid by trustees of Kansas Pacific consoli- dated bonds.....	758,400.00
Premium on bonds redeemed	30,855.29
Profit and loss	596,907.39
Total	23,271,014.01
Deficit.....	566,536.45

FLOATING INDEBTEDNESS.

Some time ago it became apparent to the management of the Union Pacific that immediate action must be taken to provide for its floating indebtedness, which, on July 31 last, amounted to about \$20,000,000. Under ordinary financial conditions this debt was amply secured by collateral, but the feeling of distrust for investment securities and the continued decline in the market values of such securities, rendered imperative such prompt and comprehensive action as would give absolute protection to the company's credit and creditors. It was found desirable to consolidate the floating debt by the issue of the obligations of the company maturing at a fixed time and to be equally secured, and to provide a fund for the necessary corporate uses of the company. To this end the bonds, stocks, and other securities held by the company, representing a par value of \$100,113,365.47 and an estimated value of

* The amount found due by this office as the requirement for the year 1890 was \$1,169,176.83.

\$41,912,835.53, have been deposited with Drexel, Morgan & Co., trustees, to secure an issue of \$24,000,000 of 3-year 6 per cent promissory notes. These notes are offered for sale at 92½ per cent of their face value and accrued interest, and most of the creditors have accepted them in payment of their claims.

Comparative statement of the financial condition of the Union Pacific Railway Company, June 30, 1891 and 1890.

	Year ending—		Difference.	
	June 30, 1891.	June 30, 1890.	Increase.	Decrease.
LIABILITIES.				
First-mortgage bonds.....	\$43,435,000.00	\$42,782,000.00	\$653,000.00	.....
Interest on same, due and accrued	263,206.06	369,365.00	.....	\$106,158.94
Interest on same, accrued, not due	1,008,520.00	1,002,177.50	6,342.50	.....
United States subsidy bonds	33,539,512.00	33,539,512.00	.....	.....
Interest on same paid by United States	47,186,149.26	45,173,778.54	2,012,370.72	.....
Other funded debt	29,770,885.00	38,758,585.00	.....	8,987,700.00
Interest on same, due and unpaid	79,496.91	93,539.24	.....	14,042.33
Interest on same, accrued, not due	457,892.49	538,220.01	.....	80,327.52
Dividends unpaid	18,709.27	18,709.27	.....	.....
Bills payable	15,635,978.58	9,135,000.00	6,500,978.58	.....
Accounts payable	2,875,472.79	2,731,437.69	144,035.10	.....
Pay rolls and vouchers	4,163,051.69	4,539,705.42	.....	376,653.73
Called bonds	152,000.00	166,000.00	.....	14,000.00
Total debt.....	178,585,874.05	178,848,029.67	.....	262,155.62
Capital stock	60,868,500.00	60,868,500.00	.....	.....
Total stock and debt	239,454,374.05	239,716,529.67	.....	262,155.62
ASSETS.				
Road, fixtures and equipment.....	158,181,624.58	155,685,070.61	2,496,553.97	.....
Land contracts, land cash, etc	10,809,946.07	13,481,555.52	.....	2,671,609.45
Fuel, materials, and stores on hand	2,319,323.96	1,967,156.73	352,167.23	.....
Cash on hand.....	1,551,713.49	2,492,237.40	.....	940,523.91
Company's stocks and bonds owned by company.....	500,514.80	683,323.20	.....	182,808.40
Other stocks and bonds owned by company.....	36,084,212.09	32,060,163.71	4,024,048.38	.....
Other stocks and bonds held in trust.....	13,453,923.63	13,674,694.01	.....	220,770.38
Miscellaneous investments	1,460,741.98	1,372,400.83	88,341.15	.....
Advances payable in stocks and bonds	3,299,728.66	2,743,286.43	556,442.23	.....
Sinking fund in hands of trustees (company).....	2,813,690.78	8,679,818.25	.....	5,866,127.47
Bills receivable.....	1,388,235.48	1,312,183.84	76,051.64	.....
Accounts receivable.....	.....	.....	.....	.....
Due from other companies on account of traffic	13,745,450.86	11,734,574.33	2,010,876.53	.....
Repaid the United States in transportation and cash	331,472.56	390,233.30	.....	58,760.74
.....	29,596,320.35	28,066,743.41	1,529,576.94	.....
Total assets.....	275,536,899.29	274,343,441.57	1,193,457.72	.....
Surplus.....	36,082,525.24	34,626,911.90	1,455,613.34	.....

In its general balance sheet the company claims credit for reimbursements to the Government by transportation services and cash payments amounting to \$29,596,320.35, but the following statement, compiled from reports furnished by the Treasury Department of settled accounts and moneys paid into the Treasury to June 30, 1891, shows a difference of \$752,260.82, as follows:

Applied to bond and interest account:

Transportation.....	\$16,717,165.80
Cash	438,409.58

Total	\$17,155,575.38
-------------	-----------------

Applied to sinking fund account:

Transportation.....	\$8,056,870.57	
Cash	1,421,714.46	
Accumulated interest on investments	2,209,899.12	
Total		\$11,688,484.15
Total credits to June 30, 1891.....		28,844,059.53
Amount of credits claimed by company.....		29,596,320.35
Difference		752,260.82

The following statements show the amount found due for the year ending December 31, 1890, from the Union Division under the Thurman act and from the Kansas Division under the acts of 1862 and 1864:

Statement of amounts due the United States from the Union Pacific Railway Company for the year ending December 31, 1890, under act of May 7, 1878.

UNION DIVISION.

EARNINGS.

United States:		
Passenger.....	\$90,614.68	
Freight.....	111,455.86	
Mail.....	676,420.50	
Telegraph	758.86	
		\$879,249.90
Commercial:		
Passenger.....	2,784,534.68	
Sleeping cars	108,999.58	
Freight.....	10,490,342.76	
Company freight.....	478,589.52	
Express.....	239,557.29	
Telegraph	51,085.03	
Miscellaneous.....	147,957.60	
		14,301,066.46
Total earnings		15,180,316.36

EXPENSES.

Maintenance of way and structures.....	1,605,446.04	
Maintenance of equipment	2,020,846.00	
Conducting transportation	4,481,928.94	
General expenses and taxes	1,452,381.94	
Total operating expenses.....	9,560,602.92	
Interest on first mortgage bonds.....	1,633,740.00	
Total expenses under act May 7, 1878		11,194,342.92
Net earnings.....		3,985,973.44
25 per cent net earnings equals.....	[\$986,493.36]	

DUE THE UNITED STATES.

One-half transportation as above	\$439, 624. 95	
5 per cent net earnings under act of 1862	199, 298. 67	
Total to bond and interest account		\$638, 923. 62
One-half transportation as above	439, 624. 95	
Total to sinking fund account		439, 624. 95
Total for the year		<u>1, 078, 548. 57</u>

KANSAS DIVISION—AIDED LINE.

EARNINGS.

United States:		
Passenger	\$6, 224. 18	
Freight	6, 925. 96	
Mail	90, 546. 72	
Telegraph	112. 34	
		\$103, 809. 20
Commercial:		
Passenger	798, 123. 39	
Sleeping cars	22, 772. 69	
Freight	1, 881, 719. 72	
Company freight	80, 953. 32	
Express	57, 148. 66	
Telegraph	5, 766. 84	
Miscellaneous	89, 828. 31	
		2, 936, 312. 93
Total earnings		<u>3, 040, 122. 13</u>

EXPENSES.

Maintenance of way and structures	335, 728. 50	
Maintenance of equipment	417, 576. 04	
Conducting transportation	821, 082. 48	
General expenses and taxes	349, 431. 54	
Total operating expenses	1, 923, 818. 56	
New construction and betterments	186, 672. 03	
New equipment	155, 158. 34	
Total expenses under act July 2, 1864		2, 265, 648. 93
Net earnings		<u>774, 473. 20</u>
Five per cent of net earnings		<u>38, 723. 66</u>

DUE THE UNITED STATES.

One-half transportation as above	51, 904. 60	
Five per cent of net earnings	38, 723. 66	
Total for the year		<u>90, 628. 26</u>

DUE FROM THE UNION PACIFIC RAILWAY COMPANY.

On account of Union Division	1, 078, 548. 57	
On account of Kansas Division	90, 628. 26	
Total		<u>1, 169, 176. 83</u>

Under a recent decision of the United States Supreme Court (138 U. S., 84) it became necessary to restate the accounts with the roads coming under the provisions of the "Thurman act." It had been the

practice, under a decision of the U. S. Court of Claims (20 C. Cls. R., 70), in ascertaining net earnings, to deduct from the gross receipts all sums expended for betterments and improvements. The Supreme Court has decided that such deductions are improper. The restatement, shown below, adds the sum of \$1,506,713.96 to the requirements from the Union Pacific Railway Company.

Statement of amounts found due the United States each year under the "Thurman act, from the Union Pacific Railway Company, from July 1, 1878, to December 31, 1890.

Period.	Twenty-five per cent of net earnings due from the Union Division.	Five per cent of net earnings, and one-half Government transportation due from Kansas Division.	Total requirement.	Less settled accounts for transportation services rendered and cash payments into the U. S. Treasury.		
				Union Division.	Kansas Division.	Total.
Half year ending Dec. 31, 1878	\$906, 429. 40	.....	\$906, 429. 40	\$354, 922. 36	\$212, 153. 47	\$567, 075. 83
Year ending Dec. 31—						
1879.....	1, 467, 773. 08	.....	1, 467, 773. 08	1, 477, 242. 72	625, 425. 99	2, 102, 668. 71
1880.....	1, 820, 653. 22	\$136, 219. 02	1, 956, 872. 24	985, 359. 61	132, 614. 44	1, 117, 974. 05
1881.....	1, 826, 294. 98	142, 571. 22	1, 968, 866. 20	455, 730. 46	122, 565. 19	578, 295. 65
1882.....	2, 032, 311. 55	118, 341. 38	2, 150, 652. 93	1, 129, 758. 48	193, 040. 21	1, 322, 798. 69
1883.....	1, 809, 458. 00	89, 221. 76	1, 898, 679. 76	1, 390, 259. 57	236, 593. 89	1, 626, 853. 46
1884.....	1, 228, 856. 77	107, 951. 93	1, 336, 808. 70	3, 178, 850. 49	152, 998. 74	3, 331, 849. 23
1885.....	1, 147, 837. 58	141, 019. 25	1, 288, 856. 83	1, 977, 605. 18	152, 213. 11	2, 129, 818. 29
1886.....	922, 861. 26	129, 914. 35	1, 052, 775. 61	1, 160, 559. 35	106, 870. 49	1, 267, 429. 84
1887.....	1, 180, 009. 09	147, 647. 90	1, 327, 656. 99	1, 065, 546. 25	96, 479. 88	1, 162, 026. 13
1888.....	1, 143, 598. 78	115, 219. 66	1, 258, 818. 44	1, 017, 942. 42	94, 379. 16	1, 112, 321. 58
1889.....	1, 251, 041. 80	91, 173. 92	1, 342, 215. 72	1, 061, 067. 34	93, 424. 74	1, 154, 492. 08
1890.....	1, 078, 548. 57	90, 628. 26	1, 169, 176. 83	1, 023, 110. 18	103, 868. 52	1, 126, 918. 70
Total	17, 815, 674. 08	1, 309, 908. 65	19, 125, 582. 73	16, 277, 954. 41	2, 322, 567. 83	18, 600, 522. 24
Balance due the United States.....						525, 060. 49
						19, 125, 582. 73

Statement of settled accounts of the Union Pacific Railway Company for transportation services rendered and cash payments covered into the United States Treasury to the credit of the following named accounts (under the "Thurman act").

Period.	Bond and interest account.			Sinking fund account.		Total.
	Union Division.		Kansas Division, transportation.	Union Division.		
	Transportation.	Cash.		Transportation.	Cash.	
Six months ending Dec. 31, 1878.....	\$292, 343. 91	.....	\$212, 153. 47	\$62, 578. 45	.....	\$567, 075. 83
Year ending December 31—						
1879.....	1, 276, 520. 11	.....	625, 425. 99	200, 722. 61	.....	2, 102, 668. 71
1880.....	571, 201. 85	.....	132, 614. 44	414, 157. 76	.....	1, 117, 974. 05
1881.....	234, 357. 88	.....	122, 565. 19	221, 372. 58	.....	578, 295. 65
1882.....	588, 694. 15	.....	193, 040. 21	541, 064. 33	.....	1, 322, 798. 69
1883.....	706, 149. 97	.....	236, 593. 89	684, 109. 60	.....	1, 626, 853. 46
1884.....	973, 710. 79	.....	152, 998. 74	1, 416, 966. 27	\$788, 173. 43	3, 331, 849. 23
1885.....	334, 508. 41	\$283, 162. 99	152, 213. 11	726, 392. 75	633, 541. 03	2, 129, 818. 29
1886.....	345, 474. 44	155, 246. 59	106, 870. 49	659, 838. 32	.....	1, 267, 429. 84
1887.....	348, 000. 24	.....	96, 479. 88	717, 546. 01	.....	1, 162, 026. 13
1888.....	324, 537. 79	.....	94, 379. 16	693, 404. 63	.....	1, 112, 321. 58
1889.....	333, 311. 57	.....	93, 424. 74	727, 755. 77	.....	1, 154, 492. 08
1890.....	379, 418. 33	.....	103, 808. 52	643, 691. 85	.....	1, 126, 918. 70
Total	6, 708, 229. 44	438, 409. 58	2, 322, 567. 83	7, 709, 600. 93	1, 421, 714. 46	18, 600, 522. 24

Comparative statement of the earnings and expenses of the Union Pacific Railway Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$3, 984, 856. 39	\$4, 325, 891. 26	.....	\$341, 034. 87
Freight	13, 679, 226. 42	14, 575, 124. 24	.....	895, 897. 82
Mail	743, 594. 60	913, 037. 28	.....	169, 442. 68
Express	357, 846. 24	445, 073. 77	.....	87, 227. 53
Miscellaneous	440, 131. 61	451. 905. 24	.....	11. 773. 63
Total	19, 205, 655. 26	20, 711, 031. 79	.....	1, 505, 376. 53
EXPENSES.				
Maintenance of way and structures	2, 019, 969. 45	2, 056, 863. 93	.....	36, 894. 48
Maintenance of equipment	2, 523, 611. 97	2, 685, 521. 16	.....	161, 909. 19
Conducting transportation	5, 732, 216. 14	5, 625, 620. 43	\$106, 595. 71	.....
General expenses and taxes	1, 962, 422. 76	1, 942, 828. 51	19, 594. 25	.....
Total	12, 238, 220. 32	12, 310, 834. 03	.....	72, 613. 71
Net earnings	6, 967, 434. 94	8, 400, 197. 76	.....	1, 432, 762. 82
Average miles operated	1, 821. 50	1, 821. 21	. 29	.....
Earnings per mile	\$10, 543. 87	\$11, 371. 75	.....	\$827. 88
Expenses per mile	6, 718. 76	6, 759. 49	.....	40. 73
Net earnings per mile	3, 825. 11	4, 612. 26	.....	787. 15
Percentage of expenses to earnings	63. 72	59. 44	4. 28	.....

CENTRAL PACIFIC RAILROAD COMPANY.

This road continues to be operated by the Southern Pacific Company under the lease of February 17, 1885, and the modification thereof dated January 1, 1888.

The total length of the road owned and operated June 30, 1891, was 1,360.28 miles, no change having been made in the mileage during the past two years. The main line extends from Oakland Wharf, California, to Ogden, Utah, with branches from Roseville Junction to the Oregon State line, Lathrop to Goshen, and from Niles northward to Oakland and southward to San José, Cal. That portion of the line extending from Ogden, Utah, to Sacramento, thence via Niles to San José, Cal., a distance of 860.66 miles, was aided by the United States with bonds and lands, and is subject to the requirements of law with respect to the payment of a percentage of its net earnings to the Government.

The subsidy bonds issued to aid in its construction amounted to \$27,855,680, and the United States had paid as interest thereon the sum of \$38,491,530.61. There had been repaid by the company, in transportation services and cash, the sum of \$12,028,333.02, making a net liability on June 30, 1891, of \$54,318,877.59. The excess of interest paid by the United States over all credits amounted to \$26,463,197.59. The amount found due under the act of May 7, 1878, for the year ending December 31, 1890, was \$537,520.44, whilst the United States paid during the corresponding period the sum of \$1,671,340.80 interest on the bonds issued to this company.

The roadbed, track, bridges, buildings, shops, and equipment were inspected by the engineer of this Bureau in April last and found to be in fair condition for that season of the year. His report of improvements made during the year will be found in Appendix No. 1.

During the year there were placed in the track 7,143.5 tons of steel rails, at a cost of \$365,600.89, and 429,717 cross-ties, at a cost of \$185,139.94, all of which was charged to income account. The expenditures for new construction amounted to \$141,957.04.

The equipment consists of 241 locomotives, all of which are equipped with Westinghouse brakes; 3 dining, 18 sleeping, 25 baggage, 16 mail, 8 express, 13 baggage, mail, and express, 157 first-class, 33 second-class, 43 emigrant and second-class sleeping, 15 combination passenger and baggage, and 7 officers' cars, making a total of 338 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller platforms. In the freight service there are 1,508 box, 35 coal, 1,671 flat, 824 combination, 153 fruit, and 104 caboose cars, making a total of 4,295 cars in this department, 4,193 of which are equipped with Westinghouse brakes, and 88 fruit cars with Miller platforms. There are 180 cars used in road-repair service. During the past year the company has placed dining cars upon its passenger trains between Ogden and Truckee.

The company reports that to June 30, 1891, there had been patented by the Government 2,402,384.34 acres of land, 1,039,710.59 being on account of the Central Pacific and 1,362,673.75 on account of the California and Oregon. There had been sold 2,622,772.40 acres and the total cash receipts from all sources to date amounted to \$9,118,745.79. There remained outstanding on account of time sales the sum of \$1,134,722.34.

The following statements show the financial condition of the company June 30, 1891, the amounts found due under the act of May 7, 1878, from July 1, 1878, to December 31, 1890, under the recent decision of the United States Supreme Court, and other statistics pertaining to the company.

Comparative statement of the funded debt of the Central Pacific Railroad Company, June 30, 1891 and 1890.

Character of bonds.	Term of bonds.		Rate of interest.	Amount of bonds outstanding.		Difference.		Lien.
	Years.	Date of maturity.		June 30, 1891.	June 30, 1890.	Increase.	Decrease.	
<i>Central Pacific Railroad Company.</i>								
First mortgage, series A.....	30	1895	6	\$2,995,000	\$2,995,000	.....	.....	Road and franchise, Sacramento to State Line.
First mortgage, series B.....	30	1896	6	1,000,000	1,000,000	.....	.....	Do.
First mortgage, series C.....	30	1896	6	1,000,000	1,000,000	.....	.....	Do.
First mortgage, series D.....	30	1896	6	1,383,000	1,383,000	.....	.....	Do.
First mortgage, series E.....	30	1897	6	3,997,000	3,997,000	.....	.....	Road and franchise, California State Line to 5 miles west of Ogden.
First mortgage, series F.....	30	1898	6	3,999,000	3,999,000	.....	.....	Do.
First mortgage, series G.....	30	1898	6	3,999,000	3,999,000	.....	.....	Do.
First mortgage, series H.....	30	1898	6	3,999,000	3,999,000	.....	.....	Do.
First mortgage, series I.....	30	1898	6	3,511,000	3,511,000	.....	.....	Do.
United States subsidy; second mortgage.	30	1895-1898	6	25,885,120	25,885,120	.....	.....	Road and franchise, Sacramento to 5 miles west of Ogden.
First mortgage, series A, extended (California and Oregon division).	30	1918	5	5,982,000	5,982,000	.....	.....	Road and franchise, Roseville Junction to Oregon State line.
First mortgage, series B (California and Oregon division).	20	1892	6	5,858,000	5,858,000	.....	.....	Do.
Land grant; extended	10	1900	5	4,258,000	4,261,000	.....	\$3,000	First mortgage, Central Pacific and California and Oregon lands.
Fifty-year bonds of 1936.....	50	1936	6	56,000	56,000	.....	.....	Lands granted by United States, and all other property except aided line.
Fifty-year bonds of 1939	50	1939	5	11,000,000	9,872,000	\$1,128,000	.....	Lands granted, and all other property.
<i>Western Pacific Railroad Company.</i>								
Old issue	30	1895	6	111,000	111,000	.....	.....	Road and franchise, Sacramento to San José.
First mortgage, series A	30	1899	6	1,859,000	1,859,000	.....	.....	Do.
First mortgage, series B	30	1899	6	765,000	765,000	.....	.....	Road and franchise, Niles to Oakland.
United States subsidy; second mortgage	30	1895-1899	6	1,970,560	1,970,560	.....	.....	Road and franchise, Sacramento to San José.
<i>San Francisco, Oakland and Alameda Railroad Company.</i>								
First mortgage	20	1890	8	.....	133,000	.....	133,000	Road and franchise.
<i>San Joaquin Valley Railroad Company.</i>								
First mortgage.....	30	1900	6	6,080,000	6,080,000	.....	.....	Road and franchise, Lathrop to Goshen.
.....	.....	.....	.....	89,707,680	88,715,680	992,000	.....	.....

*Revenue and expenditures of the Central Pacific Railroad Company for the year ending
June 30, 1891.*

REVENUE.

Earnings (guaranteed rental, 1890	\$1,360,000.00	
Land department (sales, etc., 1890)	251,341.71	
Interest on sinking funds of company	389,791.56	
Sinking fund requirements paid by Southern Pacific Com- pany, 1890	275,000.00	
United States requirement paid by Southern Pacific Com- pany, 1890	537,520.44	
Miscellaneous, dividends on stock owned	13,200.00	
		<u>\$2,826,853.71</u>

EXPENDITURES.

Operating expenses	(*)	
Interest on first mortgage bonds	(*)	
Interest on other funded debt	(*)	
Interest on other debt	(*)	
New construction	(*)	
New equipment	(*)	
Expenses of land department	(*)	
Sinking fund requirements of the company	660,542.83	
United States sinking fund requirement	537,520.44	
Land receipts paid to trustees of land mortgage	251,341.71	
Dividends Nos. 23 and 24, August 1, 1890, and February 1, 1891	1,345,510.00	
Excess earnings of sinking funds over requirements, paid by and now returned to Southern Pacific Company	4,248.73	
Expenses of operations prior to lease	19,263.60	
Payments for account of extension and readjustment of bonded debt	226,600.00	
		<u>3,045,027.31</u>
Deficit		218,173.60

*Comparative statement of the financial condition of the Central Pacific Railroad Company,
June 30, 1891 and 1890.*

	June 30, 1891.	June 30, 1890.	Difference.	
			Increase.	Decrease.
LIABILITIES.				
First mortgage bonds.....	\$27, 853, 000. 00	\$27, 853, 000. 00	.....	.....
United States subsidy bonds	27, 855, 680. 00	27, 855, 680. 00	.....	.....
Interest on same paid by United States..	38, 491, 530. 61	36, 820, 189. 81	\$1, 671, 340. 80	.....
Other funded debt	33, 999, 000. 00	33, 007, 000. 00	992, 000. 00	.....
Dividends unpaid	69, 177. 00	62, 395. 00	6, 782. 00	.....
Accounts payable, pay rolls and vouchers	257, 316. 29	262, 346. 29	.....	\$5, 030. 00
Bills payable, trustees' land grant mort- gage	2, 500, 000. 00	.....	2, 500, 000. 00	.....
Trustees' land grant mortgage	336, 842. 77	2, 591, 170. 59	.....	2, 254, 327. 82
Sinking funds uninvested .....	.....	613, 531. 22	.....	613, 531. 22
Total debt.....	131, 362, 546. 67	129, 065, 312. 91	2, 297, 233. 76	.....
Capital stock	68, 000, 000. 00	68, 000, 000. 00	.....	.....
Total stock and debt	199, 362, 546. 67	197, 065, 312. 91	2, 297, 233. 76	.....

* Payable by lessee and charged in income account.

*Comparative statement of the financial condition of the Central Pacific Railroad Company,
June 30, 1891 and 1890.*

	June 30, 1891.	June 30, 1890.	Difference.	
			Increase.	Decrease.
ASSETS.				
Cost of road fixtures and equipment....	\$168,875,826.83	\$168,766,916.27	\$108,910.56	.....
Land contracts acct. of time sales	1,129,425.49	1,067,009.12	62,416.37	.....
Cash on hand	177,506.84	104,678.30	72,828.54	.....
Company's stock owned by company....	724,500.00	724,500.00	.....	.....
Other stocks and bonds owned by com- pany	832,615.09	832,615.09	.....	.....
Miscellaneous investments	19,813.88	19,787.73	26.15	.....
Sinking funds in hands of trustees	11,167,180.57	10,393,965.56	773,215.01	.....
Collateral land trust .....	.....	1,500,000.00	.....	\$1,500,000.00
Bills and accounts receivable	3,753,686.07	1,891,731.96	1,861,954.11	.....
United States transportation and sinking fund accounts	11,491,133.24	10,967,182.57	523,950.67	.....
Due from the United States in c sh.....	1,068,161.67	1,068,161.67	.....	.....
Water front in San Francisco, Oakland, and Sacramento	7,750,000.00	7,750,000.00	.....	.....
Farming lands unsold, estimated value ..	20,750,000.00	*21,250,000.00	.....	500,000.00
Total assets	227,739,849.68	226,336,548.27	1,403,301.41	.....
Surplus.....	28,377,303.01	29,271,235.36	.....	893,932.35

*On account of conflicting and overlapping grants, adverse claims, desert lands, etc., the quantity of these lands to accrue, and their value, can not be closely estimated. The value above stated is derived from an estimate of the acres earned and to which the company would be entitled under the several acts of Congress, and applying the rate per acre fixed by the Government for adjoining lands, viz, \$2.50 per acre.

In its general balance sheet the company claims credit for reimbursements to the Government by transportation services and cash payments amounting to \$12,559,294.91, but the following statement compiled from reports furnished by the Treasury Department of settled accounts and moneys paid into the Treasury to June 30, 1891, shows a difference of \$530,961.89, as follows:

Applied to bond and interest account:

Transportation.....	\$6,260,644.40
Cash	658,283.26

Total.....	\$6,918,927.66
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Applied to sinking-fund account:

Transportation.....	3,320,326.16
Cash	633,992.48
Accumulated interest on investments.....	1,155,086.72

Total.....	5,109,405.36
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Total credits to June 30, 1891.....	12,028,333.02
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Amount of credits claimed by the company.....	12,559,294.91
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Difference	530,961.89
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Statement of amount due the United States from the Central Pacific Railroad Company for the year ending December 31, 1890, under the acts of 1862, 1864, and 1878.

EARNINGS.

United States:

Passenger	\$49,407.98	
Freight.....	37,579.66	
Mail.....	399,889.75	
		\$486,877.39

Commercial:

Passenger	2,335,857.32	
Freight.....	5,736,391.01	
Express	112,289.42	
Miscellaneous.....	204,365.13	
		8,388,911.88

Gross earnings.....		8,875,789.27
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EXPENSES.

Maintenance of way and structures	1,558,155.99
Maintenance of equipment.....	905,979.98
Conducting transportation.....	2,860,051.71
General expenses and taxes	867,560.51

Total.....	6,191,748.19
Interest on first mortgage bonds.....	1,671,180.00

Total expenses under act May 7, 1878.....	7,862,928.19
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Net earnings so ascertained	1,012,861.08
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25 per cent of net earning equals..... [\$253,215.25]

DUE THE UNITED STATES:

One-half Government transportation as above.....	243,438.69
5 per cent of net earnings.....	50,643.05

Total to credit of bond and interest account	294,081.74
One-half Government transportation as above	243,438.70

Total to credit of sinking fund account.....	243,438.70
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Total requirement for the year	537,520.44
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In a recent decision of the Supreme Court of the United States (138 U. S. R., 84) it was held that in ascertaining the net earnings under the act of May 7, 1878, it was improper to deduct from gross receipts all sums expended for betterments and improvements. The following re-statement shows the amounts found due after excluding such expenditures, and adds the sum of \$405,085.43 to the requirements from this company:

Statement of amounts found due the United States each year under the "Thurman act" from the Central Pacific Railroad Company, from July 1, 1878, to December 31, 1890.

Period.	Net earnings.	Requirement for each year.			Less settled accounts for transportation services rendered and cash payments into the U. S. Treasury.
		Twenty-five per cent of net earnings.	Five per cent of net earnings and whole Government transportation.	Total.	
Half year ending Dec. 31, 1878	\$2, 145, 167. 71	\$536, 291. 93	.....	\$536, 291. 93	\$211, 670. 58
Year ending Dec. 31—					
1879	3, 598, 255. 68	899, 563. 92	.....	899, 563. 92	768, 984. 90
1880	4, 148, 901. 12	1, 037, 225. 28	.....	1, 037, 225. 28	980, 672. 27
1881	4, 155, 740. 97	1, 038, 935. 24	.....	1, 038, 935. 24	610, 648. 21
1882	3, 171, 680. 95	792, 920. 24	.....	792, 920. 24	1, 272, 266. 45
1883	2, 646, 122. 76	661, 530. 69	.....	661, 530. 69	1, 049, 535. 18
1884	1, 212, 526. 45	.....	\$538, 851. 52	538, 851. 52	456, 850. 44
1885	1, 110, 952. 97	.....	398, 489. 03	398, 489. 03	487, 080. 33
1886	1, 496, 173. 85	.....	419, 503. 14	419, 503. 14	346, 948. 06
1887	1, 870, 429. 78	467, 607. 44	.....	467, 607. 44	364, 426. 85
1888	1, 889, 044. 48	.....	484, 452. 17	484, 452. 17	402, 068. 46
1889	1, 470, 247. 60	.....	466, 299. 14	466, 299. 14	366, 144. 43
1890	1, 012, 861. 08	.....	537, 520. 44	537, 520. 44	434, 637. 81
Total		5, 434, 074. 74	2, 845, 115. 44	8, 279, 190. 18	7, 751, 933. 97
Balance due United States					527, 256. 21
					8, 279, 190. 18

Statement of settled accounts for transportation services rendered and cash payments covered into the United States Treasury by the Central Pacific Railroad Company to the credit of the following-named accounts (under the "Thurman act").

Period.	Bond and interest account.		Sinking fund account.		Total.
	Transportation.	Cash.	Transportation.	Cash.	
Six months ending Dec. 31, 1878	\$173, 083. 32	.....	\$38, 587. 26	.....	\$211, 670. 58
Twelve months ending Dec. 31—					
1879	387, 120. 88	\$39, 191. 27	161, 343. 24	\$181, 329. 51	768, 984. 90
1880	454, 153. 11	.....	297, 442. 84	229, 076. 32	980, 672. 27
1881	242, 903. 66	.....	223, 307. 81	144, 436. 74	610, 648. 21
1882	616, 283. 48	.....	576, 833. 06	79, 149. 91	1, 272, 266. 45
1883	534, 969. 81	.....	514, 565. 37	.....	1, 049, 535. 18
1884	228, 537. 11	.....	228, 313. 33	.....	456, 850. 44
1885	243, 540. 14	.....	243, 540. 19	.....	487, 080. 33
1886	168, 468. 38	10, 011. 30	168, 468. 38	.....	346, 948. 06
1887	182, 213. 40	.....	182, 213. 45	.....	364, 426. 85
1888	201, 034. 26	.....	201, 034. 20	.....	402, 068. 46
1889	183, 072. 28	.....	183, 072. 15	.....	366, 144. 43
1890	217, 318. 94	.....	217, 318. 87	.....	434, 637. 81
Total	3, 832, 698. 77	49, 202. 57	3, 236, 040. 15	633, 992. 48	7, 751, 933. 97

Comparative statement of the earnings and expenses of the Central Pacific Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$5, 010, 355. 49	\$4, 636, 118. 62	\$374, 236. 87	.....
Freight.....	10, 707, 487. 16	9, 497, 053. 71	1, 210. 433. 45	.....
Mail	546, 235. 83	448, 554. 10	97, 681. 73	.....
Express	223, 791. 84	188, 487. 16	35, 304. 68	.....
Miscellaneous	238, 160. 75	523, 299. 05	.....	\$285, 138. 30
Total	16, 726, 031. 07	15, 293, 512. 64	1, 432, 518. 43	.....
EXPENSES.				
Maintenance of way and structures	1, 913, 111. 82	2, 245. 159. 17	.....	332, 047. 35
Maintenance of equipment	1, 429, 434. 06	1, 192, 764. 60	236, 669. 46	.....
Conducting transportation	4, 956, 697. 70	5, 335, 297. 70	.....	378, 600. 00
General expenses and taxes	1, 471, 695. 64	1, 570, 775. 00	.....	99. 079. 36
Total	9, 770, 939. 22	10, 343, 996. 47	.....	573. 057. 25
Net earnings	6, 955, 091. 85	4, 949, 516. 17	2, 005, 575. 68	.....
Average miles operated	1, 360. 28	1, 360. 28	.....	.....
Earnings per mile	\$12, 296. 02	\$11, 242. 92	\$1, 053. 10	.....
Expenses per mile.....	7, 183. 03	7, 604. 31	.....	\$421. 28
Net earnings per mile	5, 112. 99	3, 638. 61	1, 474. 38	.....
Percentage of expenses to earnings.....	58. 42	67. 64	.....	9. 22

CONDITION OF SINKING FUNDS.

The sinking funds of the Union and Central Pacific Companies, held by the Secretary of the Treasury on June 30, 1891, amounted to \$16,797,889.51, the Union Pacific having to its credit \$11,688,484.15 and the Central Pacific \$5,109,405.36.

The premium paid on bonds for the sinking fund of the Union Pacific to June 30, 1891, amounted to \$1,736,914.53 and the interest received from investments to \$2,209,899.12. For the Central Pacific the premium amounted to \$1,110,445.97 and the interest on investments to \$1,155,086.72.

Since the creation of this fund in 1878 to June 30, 1891, the Secretary of the Treasury has made the following investments :

Character of bonds.	Union Pacific.	Central Pacific.	Total.
Funded loan of 1881, 5 per cent, extended at 3 per cent ...	\$256,450.00	\$736,700.00	\$993,150.00
Funded loan of July 12, 1882, at 3 per cent	1,620,000.00	1,220,000.00	2,840,000.00
Funded loan of 1907, 4 per cent	4,478,650.00	199,100.00	4,677,750.00
Currency sixes, United States subsidy bonds	1,043,000.00	2,548,000.00	3,591,000.00
First-mortgage bonds of prior lien to United States	8,906,300.00	1,435,000.00	10,341,300.00
Principal	16,304,400.00	6,138,800.00	22,443,200.00
Less bonds redeemed and sold	6,354,900.00	2,155,800.00	8,510,700.00
Present principal	9,949,500.00	3,983,000.00	13,932,500.00
Premium paid	1,736,914.53	1,110,409.62	2,847,324.15
Total cost	11,686,414.53	5,093,409.62	16,779,824.15

On June 30, 1891, the following amounts remained in the Treasury of the United States uninvested:

To the credit of the Union Pacific.....	\$2,069.62
To the credit of the Central Pacific.....	15,959.39
Total.....	18,029.01

SIOUX CITY AND PACIFIC RAILROAD COMPANY.

This road extends from Sioux City, Iowa, to Fremont, Nebr., a distance of 101.77 miles. There is also a branch line from California Junction to Missouri Valley, Iowa, a distance of 5.65 miles, making a total of 107.42 miles. The entire line and branch, except 0.80 of a mile, are laid with steel rails. There are 29.63 miles of sidings and 194 miles of fencing. The road is operated by the Chicago and Northwestern Railway Company, and forms part of its through line from Omaha to St. Paul. Inspection was made in May by the engineer of this Bureau. His report will be found in Appendix No. 1.

The United States issued to the Sioux City and Pacific Railroad Company the sum of \$1,628,320 in bonds to aid in the construction of 101.77 miles of road, that portion of the line between California Junction and Missouri Valley, Iowa, being unsubsidized. The interest paid on these bonds by the United States to June 30, 1891, amounted to \$2,245,891.09. There had been retained by the Treasury Department on account of transportation services rendered the Government the sum of \$176,464.74, leaving due on that date an aggregate of \$3,697,746.35. The excess of interest paid by the United States above all credits amounted to \$2,069,426.35. Under the acts of 1862 and 1864 the Government is entitled to receive from this company a sum equal to 5 per cent of its net earnings and to retain one-half of the amounts found due for transportation services rendered by it. The sum of these amounts will not average \$20,000 per annum, whilst the annual interest charge on account of bonds issued by the United States to aid in construction of the road amounts to \$97,699.20.

The roadbed, track, buildings, and equipment were inspected by the engineer of this Bureau in May, 1891. Details of the important improvements made and completed during the year will be found in his report, Appendix No. 1.

The rolling stock consisted of 12 locomotives and 14 passenger cars, equipped with Westinghouse brakes, the cars being equipped also with Miller couplers and platforms; 90 box, 20 stock, 46 flat, and 12 caboose cars; making a total of 168 cars in service in the freight department. There were also 4 cars in road-repair service.

During the year 6,401 cross-ties were placed in the track at a cost of \$3,745.05.

The expenditures for new construction amounted to \$20,653.77, which includes the sum of \$15,342.01 expended on account of new station buildings.

A grant of 41,398.23 acres of land was made to this company, all of which was sold April 15, 1875, for \$200,000. to the Missouri Valley Land Company.

The following statements show the financial condition of this company on June 30, 1891 :

LIABILITIES.

First-mortgage bonds	\$1, 628, 000. 00
Interest on same, due and accrued	1, 665. 00
Interest on same, accrued, not due	48, 840. 00
United States subsidy bonds	1, 628, 320. 00
Interest on same, paid by United States	2, 245, 891. 09
Interest on preferred stock accrued, not due	2, 957. 51
Pay rolls and vouchers	51, 361. 81
Due other companies on account of traffic	940. 33
Total debt	\$5, 607, 975. 74
Capital stock	2, 068, 400. 00
Total stock and debt	7, 676, 375. 74

ASSETS.

Cost of road, fixtures, and equipment	5, 621, 328. 70
Fuel, material, and stores on hand	70, 819. 16
Cash on hand	231, 095. 88
Accounts receivable	56, 249. 15
Withheld by United States for transportation services ..	176, 464 74
Due from the United States	76, 976. 19
Total assets	6, 232, 933. 82
Deficit	1, 443, 441. 92

Statement of revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$508, 918. 52
Profit and loss	4, 641. 59
Total revenue	\$513, 560. 11

EXPENDITURES.

Operating expenses	309, 139. 52
Interest on first-mortgage bonds	97, 680. 00
Interest on other funded debt	97, 699. 20
New construction	20, 653. 77
Interest on preferred stock	11, 830. 00
Total expenditures	537, 002. 49
Deficit	23, 442. 38

Statement of amount due from the Sioux City and Pacific Railroad Company for the year ending December 31, 1890, under the acts of 1862 and 1864.

EARNINGS.

United States:

Passenger	\$588.33	
Freight	893.01	
Mail	21,594.72	
		<u>\$23,076.06</u>

Commercial:

Passenger	210,580.75	
Extra baggage	4,259.00	
Freight	202,263.67	
Express	7,729.82	
Miscellaneous	16,373.99	
		<u>441,207.23</u>

Total earnings		<u>464,283.29</u>
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EXPENSES.

Maintenance of way and structures	42,091.41	
Maintenance of equipment	35,438.57	
Conducting transportation	140,910.08	
General expenses and taxes	45,379.71	
Total operating expenses	263,819.77	
New construction	\$14,752.82	
New equipment	94.57	
	<u>14,847.39</u>	
		<u>278,667.16</u>
Net earnings		<u>185,616.13</u>
Five per cent of net earnings		<u>9,280.81</u>

DUE THE UNITED STATES.

One-half Government transportation, as above	11,538.03	
Five per cent of net earnings, act of July 1, 1862	9,280.81	
Total		<u>20,818.84</u>

Comparative statement of the earnings and expenses of the Sioux City and Pacific Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$240, 657. 80	\$228, 478. 25	\$12, 179. 55	.....
Freight	215, 376. 52	254, 398. 46	.....	\$39, 021. 94
Mail	23, 455. 46	23, 027. 88	427. 58	.....
Express	7, 762. 73	10, 731. 36	.....	2, 968. 63
Miscellaneous	21, 666. 01	18, 400. 64	3, 265. 37	.....
Total	508, 918. 52	535, 036. 59	.....	26, 118. 07
EXPENSES.				
Maintenance of way and structures.....	46, 265. 67	68, 819. 71	.....	22, 554. 04
Maintenance of equipment.....	36, 528. 15	32, 141. 69	4, 386. 46	.....
Conducting transportation	177, 364. 41	173, 941. 68	3, 422. 73	.....
General expenses and taxes	48, 981. 29	50, 469. 38	.....	1, 488. 09
Total	309, 139. 52	325, 372. 46	.....	16, 232. 94
Net earnings	199, 779. 00	209, 664. 13	.....	9, 885. 13
Average miles operated	107. 42	107. 42	.....	.....
Earnings per mile	\$4, 737. 65	\$4, 980. 79	.....	\$243. 14
Expenses per mile	2, 877. 85	3, 028. 97	.....	151. 12
Net earnings per mile	1, 859. 80	1, 951. 82	.....	92. 02
Percentage of expenses to earnings.....	60. 75	60. 81	.....	. 06

CENTRAL BRANCH UNION PACIFIC RAILROAD COMPANY.

The main line of this road extends from Atchison to Waterville, Kans., a distance of 100 miles. The company also leases the Atchison, Colorado and Pacific Railroad, 254.03 miles, and the Atchison, Jewell County and Western Railroad, 34 miles; making a total of 388.03 miles owned and operated. The Union Pacific Railway Company owns \$858,000 of the \$1,000,000 capital stock of the company; but the road and its branches were leased September 30, 1885, to the Missouri Pacific Railway Company for a period of twenty-five years, the net earnings being paid to the Union Pacific Company as rental.

Subsidy bonds were issued to aid in the construction of this road between Atchison and Waterville to the amount of \$1,600,000. The interest paid on these bonds by the United States amounted to \$2,317,808.26; and there had been repaid by the company, in transportation services and cash, the sum of \$478,133.07, leaving a liability to the Government on June 30, 1891, of \$3,439,675.19. The excess of interest paid over all credits amounted to \$1,839,675.19.

During the year 26,661 new cross-ties were placed in the track, at a cost of \$15,463.38.

The equipment consists of 35 locomotives, all of which are equipped with Westinghouse air brakes, and 5 with steam brakes, 23 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller platforms, and 513 cars in the freight service.

The aided portion of the road was inspected by the engineer of this Bureau in May last. His report thereon will be found in Appendix No. 1.

The following statement shows the financial condition of the company June 30, 1891, and the amount found due the United States for the year ending December 31, 1890, under the acts of 1862 and 1864:

LIABILITIES.

First mortgage bonds.....	\$2,230,000.00	
Interest on same due and accrued.....	2,600.00	
United States subsidy bonds.....	1,600,000.00	
Interest on same paid by United States.....	2,317,808.26	
Dividends unpaid.....	25.00	
Accounts payable.....	640,130.03	
Total debt.....		\$6,790,563.29
Capital stock.....		1,000,000.00
Total stock and debt.....		7,790,563.29

ASSETS.

Road, fixtures, and equipment.....	4,001,299.76	
Land contracts, land cash, etc.....	16,546.74	
Company's stock owned by company.....	15,400.00	
Other stocks and bonds.....	112,837.76	
Accounts receivable.....	1,800.00	
Repaid the United States in transportation and cash...	489,625.62	
Total assets.....		4,637,509.88
Deficit.....		3,153,053.41

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings.....	\$341,126.26	
Interest on bonds of other companies.....	225.00	
Interest and income from miscellaneous investments....	7,382.04	
Receipts of the land department.....	2,130.42	
Total.....		350,863.72

EXPENDITURES.

Operating expenses and taxes.....	328,124.39	
Interest on first-mortgage bonds.....	140,100.00	
Losses on leased lines.....	364,131.45	
Expenses of the land department.....	63.40	
United States requirement for the year.....	12,569.68	
Profit and loss.....	1,187.67	
Total.....		846,176.59
Deficit.....		495,312.87

Statement of amount due the United States from the Central Branch Union Pacific Railroad Company, for the year ending December 31, 1890, under the acts of 1862 and 1864.

EARNINGS.

United States:

Passenger	\$1. 89	
Freight.....	28. 53	
Mail.....	15, 131. 80	
		\$15, 162. 22

Commercial:

Passenger	76, 336. 83	
Freight.....	380, 840. 21	
Express	4, 654. 64	
Miscellaneous.....	7, 782. 75	
		469, 614. 43

Total earnings.....		484, 776. 65
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EXPENSES.

Conducting transportation	119, 336. 41	
Motive power.....	101, 721. 82	
Maintenance of way	98, 853. 02	
Maintenance of cars	25, 228. 69	
General expenses and taxes	39. 865. 31	
		385, 005. 25

Net earnings.....		99, 771. 40
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Five per cent of net earnings.....		4, 988. 57
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DUE THE UNITED STATES.

One-half Government transportation as above.....	7, 581. 11	
Five per cent of net earnings.....	4, 988. 57	
		12, 569. 68

Comparative statement of the earnings and expenses of the Central Branch Union Pacific Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$70, 538. 14	\$73, 100. 24	.....	\$2, 562. 10
Freight.....	243, 029. 56	463, 041. 81	.....	220, 012. 25
Mail	15, 862. 28	14, 401. 32	\$1, 460. 96	.....
Express	4, 234. 82	4, 824. 99	.....	590. 17
Miscellaneous	7, 461. 46	7, 072. 05	389. 41	.....
Total	341, 126. 26	562, 440. 41	.....	221, 314. 15
EXPENSES.				
Maintenance of way and structures.....	99, 946. 58	65, 966. 79	33, 979. 79	.....
Maintenance of equipment.....	33, 693. 20	45, 786. 76	.....	12, 093. 56
Conducting transportation.....	134, 229. 43	178, 765. 25	.....	44, 535. 82
General expenses.....	34, 984. 83	31, 213. 14	3, 771. 69	.....
Total	302, 854. 04	321, 731. 94	.....	18, 877. 90
Net earnings.....	38, 272. 22	240, 708. 47	.....	202, 436. 25
Average miles operated.....	100. 00	100. 00	.....	.....
Earnings per mile.....	\$3, 411. 26	\$5, 624. 40	.....	\$2, 213. 14
Expenses per mile.....	3, 028. 54	3, 217. 32	.....	188. 78
Net earnings per mile	382. 72	2, 407. 08	.....	2, 024. 36
Percentage of expenses to earnings.....	88. 77	57. 20	31: 57	.....

Amount of bonds issued in aid of Pacific railroads, the interest paid thereon by the United States, and the amounts repaid by the several companies to June 30, 1891.

	Union Pacific, including Kansas Pa- cific.	Central Pa- cific, includ- ing Western Pacific.	Sioux City and Pacific.	Central Branch Union Pacific.	Total.
Principal of bonds issued ..	\$33, 539, 512. 00	\$27, 855, 680. 00	\$1, 628, 320. 00	\$1, 600, 000. 00	\$64, 623, 512. 00
Interest paid by the United States	47, 186, 149. 26	38, 491, 530. 61	2, 245, 891. 09	2, 317, 808. 26	90, 241, 379. 22
Total debt	80, 725, 661. 26	66, 347, 210. 61	3, 874, 211. 09	3, 917, 808. 26	154, 864, 891. 22
CREDITS.					
Applied to bond and inter- est account:					
Transportation	16, 717, 165. 80	6, 260, 644. 40	176, 464. 74	471, 206. 16	23, 625, 481. 10
Cash	438, 409. 58	658, 283. 26	.....	6, 926. 91	1, 103, 619. 75
Applied to sinking fund account:					
Transportation	8, 056, 870. 57	3, 320, 326. 16	.....	.....	11, 377, 196. 73
Cash	1, 421, 714. 46	633, 992. 48	.....	.....	2, 055, 706. 94
Interest on sinking fund investments.....	2, 209, 899. 12	1, 155, 086. 72	.....	.....	3, 364, 985. 84
Total credits.....	28, 844, 059. 53	12, 028, 333. 02	176, 464. 74	478, 133. 07	41, 526, 990. 36
Balance of debt	51, 881, 601. 73	54, 318, 877. 59	3, 697, 746. 35	3, 439, 675. 19	113, 337, 900. 08
Excess of interest paid by United States over all credits	18, 342, 089. 73	26, 463, 197. 59	2, 069, 426. 35	1, 839, 675. 19	48, 714, 388. 86

ATCHISON, TOPEKA AND SANTA FÉ RAILROAD COMPANY.

This company has failed to submit, on the form prescribed by this Bureau, any report of its operations for the year ending June 30, 1891.

ATLANTIC AND PACIFIC RAILROAD COMPANY.

This company was organized under the act of Congress approved July 27, 1866, for the purpose of constructing a railroad from Springfield, Mo., to the Pacific Ocean, on what is known as the thirty-fifth parallel, a distance of about 2,000 miles. It embraces what was originally the southwest branch of the Pacific Railroad of Missouri, the two companies having been consolidated October 25, 1870.

The central division of the road extends from Seneca, Mo., to Sapulpa, Ind. T., a distance of 112.05 miles, and was purchased by the St. Louis and San Francisco Railway Company under foreclosure September 8, 1876. The western division, extending from Albuquerque, N. Mex., to Mojave, Cal., a distance of 805.86 miles, is operated by the Atchison, Topeka and Santa Fé Railroad Company and forms a part of its through line to the Pacific coast. The Atchison, Topeka and Santa Fé Railroad Company and the St. Louis and San Francisco Railway Company each own about \$29,000,000 of the capital stock of this company, the total amount outstanding being \$79,760,300.

The entire line is laid with steel rails. The ballast consists of 31 miles of gravel, 92.90 miles of cinder, and the remainder of earth. There were placed in the track during the year 5,217.10 tons of steel rails, at a cost of \$243,963.09, and 469,220 cross-ties at a cost of

\$233,063.73. During the same period the sum of \$126,223.95 was expended for additions and betterments to the railway, and \$153,973.86 for new equipment.

The western division was inspected by the engineer of this Bureau in May last. His report thereon will be found in Appendix No. 1.

The equipment consists of 46 locomotives, all of which are equipped with Westinghouse brakes; 8 first-class passenger, 8 baggage, mail, and express, and 2 officer's cars, all of which are equipped with Westinghouse brakes and Miller platforms; 162 box, 71 stock, 265 coal, 384 flat, and 42 caboose cars, 89 of which are equipped with Westinghouse brakes. There are 90 water and oil tank cars and 2 derrick cars.

The company reports that since the reorganization the total cash receipts from all sales of lands to date amounted to \$3,913,403.86, and that there were outstanding on account of time sales the sum of \$447,704.95. The records of the General Land Office show that to June 30, 1891, there had been patented to the company 1,695,726.06 acres of land, 966,776.70 acres being on account of the Atlantic and Pacific Railroad, and 728,949.36 acres on account of the southwest branch of the Pacific Railroad. The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First mortgage bonds	\$18,793,905.00
Interest on same, due and accrued	355,900.00
Interest on same, accrued, not due	11,895.00
Other funded debt	20,119,629.00
Interest on same, accrued, not due	219,066.50
Bills payable	9,050,584.12
Accounts payable	1,791,340.75
Pay rolls and vouchers	446,807.46
Due other companies on account of traffic	93,646.35
Called bonds	100,000.00
Sinking funds uninvested	33,333.33
Total debt	\$51,016,107.51
Capital stock	79,760,300.00
Total stock and debt	130,776,407.51

ASSETS.

Cost of road, fixtures, and equipment	120,159,817.08
Land contracts, land cash, etc	447,704.95
Fuel, material, and stores on hand	159,298.92
Cash on hand	393,626.25
Miscellaneous investments	105,000.00
Advances payable in stocks and bonds	113,759.03
Bills receivable	28,449.63
Due from other companies on account of traffic	433,149.17
Due from the United States, unsettled accounts	60,945.65
Total	121,901,750.68
Deficit	8,874,656.83

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings.....	\$3,253,977.00	
Receipts of the land department	43,941.74	
Miscellaneous	22,769.83	
Total.....		\$3,320,688.57

EXPENDITURES.

Operating expenses.....	3,412,305.50	
Interest on first mortgage bonds	775,530.00	
Interest on other funded debt	334,000.00	
Interest on other debt	912,274.47	
Sinking fund requirements, company.....	90,000.00	
New construction.....	12,464.92	
New equipment.....	153,973.86	
Expenses of the land department.....	36,778.39	
Total.....		5,727,327.14
Deficit		2,406,638.57

Comparative statement of the earnings and expenses of the Atlantic and Pacific Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$701, 062. 95	\$576, 929. 17	\$124, 133. 78	.....
Freight.....	2, 186, 323. 32	1, 932, 300. 81	254, 022. 51	.....
Mail.....	116, 747. 75	83, 062. 08	33, 685. 67	.....
Express	128, 415. 96	128, 415. 96	.....	.....
Miscellaneous	19, 914. 13	9, 436. 50	10, 477. 63	.....
Total	3, 152, 464. 11	2, 730, 144. 52	422, 319. 59	.....
EXPENSES.				
Maintenance of way and structures.....	989, 427. 26	524, 894. 56	464, 532. 70	.....
Maintenance of equipment	505, 249. 60	349, 833. 72	155, 415. 88	.....
Conducting transportation	1, 508, 849. 76	1, 344, 133. 54	164, 716. 22	.....
General expenses and taxes	101, 798. 25	87, 686. 86	14, 111. 39	.....
Total	3, 105, 324. 87	2, 306, 548. 68	798, 776. 19	.....
Net earnings	47, 139. 24	423, 595. 84	.....	\$376, 456. 60
Average miles operated	818	815	3	.....
Earnings per mile	\$3, 853. 87	\$3, 349. 86	\$504. 01	.....
Expenses per mile.....	3, 796. 24	2, 830. 12	966. 12	.....
Net earnings per mile.....	57. 63	519. 74	.....	462. 11
Percentage of expenses to earnings.....	98. 55	84. 48	14. 07	.....

CHICAGO, BURLINGTON AND QUINCY RAILROAD COMPANY.

This company has failed to submit, on the form prescribed by this Bureau, any report of its operations for the year ending June 30, 1891.

CHICAGO, MILWAUKEE AND ST. PAUL RAILWAY COMPANY.

This company has failed to submit to this office any report of its operations. The following is compiled from the printed annual report of the company to its stockholders for the year ending June 30, 1891:

The company owns and operates 5,721.40 miles of railway, 4,220 miles of which are laid with steel and 1,501.40 miles with iron rails. During the year 32,333 tons of steel rails and 1,419,713 cross-ties were placed in the track. The expenditures for equipment amounted to \$1,519,359.12, and for improvements to \$1,427,909.35.

The earnings from freight amounted to \$19,012,159.12, from passengers to \$6,277,774.05, and from mails, express, etc., to \$2,214,291.32, making the gross earnings \$27,504,224.49. The operating expenses amounted to \$18,366,500.07, leaving the sum of \$9,137,724.42 as the net earnings for the year.

The equipment consists of 801 locomotives, 352 passenger, 57 sleeping, 12 parlor, 9 dining, and 248 baggage, postal, mail and express cars, making a total of 678 cars in the passenger service. In the freight service there are 17,447 box, 2,340 stock, 4,327 flat and coal, 509 refrigerator, 126 ore, 65 log, and 503 caboose, wrecking, and tool cars, making a total of 25,317 cars in this service.

The Land Commissioner reports that on July 1, 1890, the company owned 66,357.79 acres, and that it received during the year 6,932.28 acres, making a total of 73,290.07 acres. There had been sold during the year 14,130.58 acres, leaving 59,159.49 acres unsold June 30, 1891. The estimated value of unsold lands was \$166,018.90, and the sum of \$213,177.43 was the balance due on lands previously sold.

The following statement shows the financial condition of the company June 30, 1891:

LIABILITIES.

Funded debt.....	\$129,797,000.00
Pay rolls, vouchers, and accounts.....	2,786,778.16
Loans and bills payable.....	3,477,228.44
Dividends unclaimed.....	30,027.08
Interest coupons not presented	61,618.16
Interest accrued, not yet payable.....	3,546,775.42
Total debt.....	139,699,427.26
Capital stock	68,226,161.00
Total stock and debt.....	\$207,925,588.26

ASSETS.

Cost of road and equipment	\$189,624,727.91
Bonds and stocks of other companies	7,337,240.72
Due from agents, conductors, etc	256,954.26
Due from the United States	276,251.11
Miscellaneous accounts.....	2,021,462.62
Fuel, materials, and stores on hand.....	2,313,223.30
Stock of company held in treasury	4,821.00
Mortgage bonds of company held in treasury.....	5,692,000.00
Cash on hand.....	3,493,760.00
Total assets.....	\$211,020,440.92
Surplus.....	3,094,852.66

CHICAGO AND NORTHWESTERN RAILWAY COMPANY.

The following railway lines form the system of this company :

	Miles.
Chicago and Northwestern Railway	3,084.60
Princeton and Western Railway	16.06
Winona and St. Peter Railroad	448.48
Dakota Central Railway	723.93
Total	4,273.07

In addition to the foregoing, there were 204.73 miles of double track and 1,112.60 miles of sidings, making 5,590.40 miles owned and operated by this company on June 30, 1891, of which 4,735.49 miles are laid with steel, and 850.34 miles laid with iron rails. The maximum weight of the steel rails is 73 pounds, and of iron rails 60 pounds, per yard. The ballast consisted of 135.37 miles of stone and slag, 1,500.43 miles of gravel, 105.15 miles of cinder, and 3,844.88 miles of earth. There were 3,573.88 miles of fencing.

During the year there were laid 17,153 tons of steel rails at a cost of \$540,678.81; 1,324,994 cross-ties were placed in the track at a cost of \$525,735.65.

The total amount expended for additions and betterments to railway during the year was \$3,419,428.93, all of which was charged to construction account. Included in the above is the sum of \$626,387.70 expended for right of way and purchase of real estate.

At the close of the year the equipment consisted of 846 locomotives, 738 of which are equipped with Westinghouse brakes; 11 parlor, 9 dining, 6 chair, 8 officers', 302 first class and 28 second-class passenger, 29 milk, 28 mail, 117 baggage and express, and 49 combination cars, making a total of 587 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller and Schroyer platforms. In the freight service there were 14,949 box, 1,861 stock, 1,950 coal, 2,296 flat, 230 refrigerator, 4,199 ore, and 451 caboose cars; a total of 25,936 cars in the service in this department. In the road-repair service there were 30 derrick and wrecking, 107 dump, gravel, and construction, and 18

boarding cars; also 2 steam snowplows. There were added to the rolling stock during the year 40 locomotives, 74 refrigerator, and 100 flat cars, at a total cost of \$534,831.90.

The company reports that the total number of acres of land acquired under the several grants was 2,959,105.20, of which 1,846,349.53 had been sold and conveyed by deed, and 245,162.42 were under contract, leaving 867,593.24 acres still owned by the company.

The total cash receipts from all sales to June 30, 1891, amounted to \$6,277,453.03, and there remained outstanding on account of time sales the sum of \$856,791.72.

The land-grant portion of the road between Chicago and Council Bluffs was inspected by the engineer of this Bureau in June. His report will be found in Appendix No. 1.

The following statements show the financial condition of the company on June 30, 1891:

LIABILITIES.

First-mortgage bonds.....	\$81,465,500.00
Interest on same, due and unpaid.....	131,484.50
Interest on same, accrued not due.....	1,242,326.48
Other funded debt.....	31,105,000.00
Interest on other funded debt, due and unpaid.....	78,420.02
Interest on other funded debt, accrued not due.....	249,779.12
Dividends unpaid.....	41,884.75
Pay rolls and vouchers.....	1,977,801.40
Due other companies on account of traffic.....	200,068.05
Due other companies on account of leases.....	6,000.00
Fremont, Elkhorn and Missouri Valley Railroad Company.....	897,068.09
Missouri Valley and Blair Railway and Bridge Company.....	314,251.85
Sinking funds paid.....	4,972,271.20
Accretions to sinking funds.....	639,170.00
Total debt.....	\$123,321,025.46
Capital stock.....	66,522,820.53
Total stock and debt.....	189,843,845.99

ASSETS.

Cost of road, fixtures, and equipment.....	159,010,750.82
Cost of real estate other than road.....	608,430.13
Land contracts, land cash, etc.....	650,000.00
Fuel, material, and stores on hand.....	1,950,532.01
Cash on hand.....	1,324,186.51
Company's stocks and bonds owned by company.....	238,500.00
Other stocks and bonds, including bonds held as collateral for bonds of Chicago and Northwestern Railway Company issue.....	26,625,820.16
Sinking funds paid and accretions to.....	5,611,441.20
Bills receivable.....	114,695.20
Accounts receivable.....	1,859,477.85
Total assets.....	197,993,833.88
Surplus.....	8,149,987.89

Revenue and expenditures.

REVENUE.

Earnings	\$28,090,517.95
Dividends on stocks of other companies	216,243.00
Interest on bonds of other companies.....	493.05
Interest on miscellaneous investments	42,365.04
Receipts of the land department	561,011.88
Total.....	\$28,910,630.92

EXPENDITURES.

Operating expenses.....	18,503,254.73
Interest on first-mortgage bonds.....	4,262,015.09
Interest on other funded debt	1,620,490.97
Sinking-fund requirements (company).....	201,301.20
New construction.....	3,419,428.93
New equipment.....	534,831.90
Dividends, 1890-'91.....	3,445,804.00
Expenses of the land department	129,119.45
Land purchased on account of Town Lot Company...	31,989.56
	32,148,235.83
Deficit	3,237,604.91

Comparative statement of the earnings and expenses of the Chicago and Northwestern Railway Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$6,940,974.28	\$6,422,782.60	\$518,191.68	.....
Freight.....	19,980,909.85	19,864,151.89	116,757.96	.....
Mail	599,453.95	586,722.83	12,731.12	.....
Express	417,076.73	403,633.27	13,443.46	.....
Miscellaneous	152,103.14	143,902.87	8,200.27	.....
Total	28,090,517.95	27,421,193.46	669,324.49	.....
EXPENSES.				
Maintenance of way and structures	3,357,900.59	3,695,953.71	.....	\$338,053.12
Maintenance of equipment	2,935,132.38	2,608,861.05	326,271.33	.....
Conducting transportation	9,910,721.69	9,307,775.41	602,946.28	.....
General expenses and taxes.....	2,299,500.07	2,189,321.72	110,178.35	.....
Total	18,503,254.73	17,801,911.89	701,342.84	.....
Net earnings	9,587,263.22	9,619,281.57	.....	32,018.35
Average miles operated.....	4,273.07	4,250.38	22.69	.....
Earnings per mile.....	\$6,573.85	\$6,451.47	\$122.38	.....
Expenses per mile.....	4,330.20	4,188.31	141.89	.....
Net earnings per mile.....	2,243.65	2,263.16	.....	19.51
Percentage of expenses to earnings.....	65.87	64.92	.95	.....

CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY COMPANY.

This company has again failed to submit, on the form prescribed by this office, its report for the year ending June 30, 1891, monthly statements of earnings and expenses being all that have been furnished.

The following statistics have been compiled from the printed annual report of the company to its stockholders, for the year ending March 31, 1891.

The main line of the road extends from Chicago, Ill., to Council Bluffs, Iowa, a distance of 498.92 miles. The Kansas branch extends from Davenport, Iowa, to Atchison, Kans., 341.84 miles, and the Leavenworth branch from Atchison Junction, Mo., to Leavenworth, Kans., 20.26 miles. It also has various other branches, aggregating 377.82 miles in length, which makes a total of road owned of 1,238.84 miles. The company also leases 1,839.27 miles of road and has trackage rights over 330.45 miles, making a total of 3,408.56 miles of road over which trains are operated. There are 195.70 miles of second track, 9.05 miles of third track, and 583.51 miles of sidings.

The amount charged to construction account for the year was \$494,851.79, and to equipment account \$316,343.55. There were placed in the track 567,931 cross-ties at a cost of \$248,292.62, and 8,856 tons of steel rails were laid at a cost of \$282,929.81.

The equipment consists of 534 locomotives; 40 sleeping, 246 passenger, 79 baggage, mail and express, 9 postal, 11 dining, and 5 officers' cars, making a total of 390 cars in passenger service. In freight service there are 9,528 box, 1,852 stock, 2,429 platform and coal, and 400 drovers', caboose, and other cars, making a total of 14,209 cars in this service. There are 1,359 gravel, hand, and other cars used in road-repair service.

The records of the General Land Office show that to June 30, 1891, there had been patented by the Government 1,176,883.96 acres of land, 607,461.68 being on account of the grant to the Chicago, Rock Island and Pacific Railway, and 569,422.28 on account of the Des Moines Valley Railroad, but the company makes no report of the disposition of the same or the amount realized from the sale of its lands. The land commissioner of the company reports that for the year ending March 31, 1891, there had been sold 3,011.81 acres for \$33,026.22, an average of about \$10.96 per acre. The bills receivable outstanding at the end of the year were \$175,395.28, and the interest and rentals collected amounted to \$14,803.88. The number of acres remaining unsold, to which the title is considered perfect, is 3,642.22, but the company still retains considerable real estate in the additions it has laid out to the town of Audubon.

The following statements show the financial condition of the company April 1, 1891, and the earnings and expenses for the years ending June 30, 1891-1890:

LIABILITIES.

6 per cent mortgage bonds.....	\$12,500,000.00
5 per cent extension bonds	33,652,000.00
Chicago and Southwestern Railroad bonds, guaranteed	5,000,000.00
Addition and improvement account	8,213,000.00
Certificates of indebtedness issued on account of Chicago, Kansas and Nebraska Railway.....	1,050,000.00
Accounts payable.....	1,618,668.28
Total debt.....	<u>\$62,033,668.28</u>
Capital stock.....	46,156,000.00
Total stock and debt.....	<u>108,189,668.28</u>

ASSETS.

Road, fixtures, and equipments.....	66,281,614.28
Railroad bridge at Rock Island.....	758,526.10
Stocks and bonds of connecting roads.....	8,756,102.85
Advances to Chicago, Kansas and Nebraska Railway Company	28,352,067.73
Cost of Nebraska extension.....	1,410,836.44
Loans and other investments.....	591,480.46
Company's stock owned by company	12,100.00
Company's 6 per cent bonds owned by company.....	400,000.00
Sinking fund, first mortgage and other bonds	133,000.00
Fuel, materials, and stores on hand.....	933,374.14
Due from Post-Office Department.....	30,458.01
Accounts receivable.....	613,691.52
Cash and loans (payable on demand)	187,031.81
Total assets.....	<u>108,460,283.34</u>
Surplus.....	<u>270,615.06</u>

Comparative statement of the earnings and expenses of the Chicago, Rock Island and Pacific Railway Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$4, 890, 699. 26	\$4, 525, 901. 58	\$364, 797. 68	
Freight	11, 240, 987. 93	12, 293, 175. 70		\$1, 052, 187. 77
Mail	416, 477. 14	372, 602. 87	43, 874. 27	
Express	319, 986. 46	313, 906. 59	6, 079. 87	
Miscellaneous	462, 059. 38	537, 931. 11		75, 871. 73
Total	17, 330, 210. 17	18, 043, 517. 85		713, 307. 68
EXPENSES.				
Maintenance of way and structures	2, 241, 731. 35	2, 572, 107. 21		330, 375. 86
Maintenance of equipment	1, 978, 739. 23	2, 107, 847. 57		129, 108. 34
Conducting transportation	5, 715, 075. 44	5, 848, 799. 56		133, 724. 12
General expenses and taxes	2, 093, 403. 21	2, 217, 779. 14		124, 375. 93
Total	12, 028, 949. 23	12, 746, 533. 48		717, 584. 25
Net earnings.....	5, 301, 260. 94	5, 296, 984. 37	4, 276. 57	
Average miles operated	3, 257. 00	3, 257. 00		
Earnings per mile	\$5, 320. 91	\$5, 539. 92		\$219. 01
Expenses per mile.....	3, 693. 26	3, 913. 58		220. 32
Net earnings per mile	1, 627. 65	1, 626. 34	1. 31	
Percentage of expenses to earnings.....	69. 45	70. 60		1. 15

DUBUQUE AND SIOUX CITY RAILROAD COMPANY.

The main line of this road extends from Dubuque to Sioux City, Iowa, a distance of 326.58 miles. The company also owns 197.43 miles of branch lines, and leases the Cedar Falls and Minnesota Railroad, 75.58 miles; making a total of 599.59 miles operated, of which 541.01 miles are laid with steel rails.

The Dubuque and Pacific Railroad Company was chartered November 24, 1856, for the purpose of constructing a line between Dubuque and Iowa Falls, Iowa, a distance of 142.89 miles. After the completion of 80 miles of road it was sold under foreclosure August 21, 1860, and the company reorganized under the name of the Dubuque and Sioux City Railroad Company.

The Iowa Falls and Sioux City Railroad Company was organized October 1, 1867, for the purpose of constructing a road from Iowa Falls to Sioux City, Iowa, a distance of 183.69 miles. Both companies received grants of land from the United States to aid in their construction.

On October 3, 1889, the following-named roads were conveyed to the Dubuque and Sioux City Railroad Company:

	Miles.
Dubuque and Sioux City Railroad, Dubuque to Iowa Falls.....	142. 89
Iowa Falls and Sioux City Railroad, Iowa Falls to Sioux City	183. 69
Cedar Rapids and Chicago Railroad, Manchester to Cedar Rapids	41. 85
Cherokee and Dakota Railroad:	
Cherokee to Sioux Falls.....	96. 48
Cherokee to Onawa	59. 10

The capital stock was increased to \$8,000,000, all of which is outstanding except the sum of \$400.

The entire road is operated by the Illinois Central Railroad Company.

On June 30, 1891, the equipment consisted of 55 locomotives, 31 of which are equipped with Westinghouse brakes; 28 first-class and 17 combination cars, equipped with Westinghouse brakes and Miller platforms; 137 box, 24 stock, 14 coal, 24 flat, and 7 caboose cars, making a total of 251 cars in the service.

The expenditures for additions and betterments to railway during the year ending June 30, 1891, amounted to \$272,189.39, all of which was charged to construction account.

The records of the General Land Office show that to June 30, 1891, there had been patented by the Government to aid in the construction of a railroad between Dubuque and Sioux City, Iowa, 1,155,956.53 acres of land, the Dubuque and Sioux City Railroad Company having received 472,932.73 acres, and the Iowa Falls and Sioux City Railroad Company 683,023.80 acres.

The transactions of the land department, as furnished by the company in its report to this office, show that for the year ending June 30, 1891, the total receipts were \$20,535.90, and the expenses \$2,668.01. There remained outstanding on account of time sales the sum of \$30,416.56. The company makes no report of the total number of acres received from the grant, nor of the total amount received from the sales thereof.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First-mortgage bonds	\$8,847,000.00
Interest on same, due and accrued	25,620.00
Dividends unpaid	575.23
Bills payable	320,000.00
Pay rolls, vouchers, and accounts	713.49
Due other companies on account of traffic	268,626.05
Total debt	\$9,462,534.77
Capital stock	7,999,600.00
Total stock and debt	17,462,134.77

ASSETS.

Cost of road and equipment	16,978,848.74
Land contracts	30,416.56
Company's stock and bonds owned by company	532,283.13
Other stocks and bonds	5.80
Accounts receivable	6,673.10
Total assets	17,548,227.33
Surplus	86,092.56

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$2, 243, 501. 45
Dividends on stocks of other companies	437. 00
Interest on bonds of other companies	23, 025. 00
Profits on miscellaneous investments	100. 00
Receipts of the land department	20, 535. 90
Total	\$2, 287, 599. 35

EXPENDITURES.

Operating expenses	1, 359, 461. 32
Interest on first-mortgage bonds	307, 670. 00
Interest on other debt	16, 000. 00
New construction	272, 189. 39
Dividends	79, 996. 00
Expenses of the land department	2, 668. 01
Net loss on branch lines	506, 948. 07
Total	2, 544, 932. 79
Deficit	257, 333. 44

Comparative statement of the earnings and expenses of the Dubuque and Sioux City Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$553, 436. 39	\$446, 741. 59	\$106, 694. 80	.....
Freight	1, 560, 093. 40	1, 171, 768. 62	388, 324. 78	.....
Mail	46, 775. 35	40, 099. 97	6, 675. 38	.....
Express	30, 816. 94	25, 650. 62	5, 166. 32	.....
Miscellaneous	52, 379. 37	49, 261. 37	3, 118. 00	.....
Total	2, 243, 501. 45	1, 733, 522. 17	509, 979. 28	.....
EXPENSES.				
Maintenance of way and structures	378, 977. 96	405, 801. 31	.....	26, 823. 35
Maintenance of equipment	195, 865. 79	179, 328. 44	16, 537. 35	.....
Conducting transportation	577, 310. 05	548, 095. 34	29, 214. 71	.....
General expenses and taxes	479, 496. 91	186, 147. 90	293, 349. 01	.....
Total	1, 631, 650. 71	1, 319, 372. 99	312, 277. 72	.....
Net earnings	611, 850. 74	414, 149. 18	197, 701. 56	.....
Average miles operated	326. 58	326. 58	.....	.....
Earnings per mile	\$6, 869. 68	\$5, 308. 10	\$1, 561. 58	.....
Expenses per mile	4, 996. 17	4, 039. 68	956. 49	.....
Net earnings per mile	1, 873. 51	1, 268. 42	605. 09	.....
Percentage of expenses to earnings	72. 72	76. 01	.....	3. 29

HANNIBAL AND ST. JOSEPH RAILROAD COMPANY.

The main line of this road extends from Hannibal to St. Joseph, Mo., a distance of 206.41 miles. It also operates 88.83 miles of branch lines, making a total of 295.24 miles owned and operated. The entire line is operated by the Chicago, Burlington and Quincy Railroad Company, which acquired a controlling interest in 1882.

The rolling stock consisted of 78 locomotives, 35 passenger, 16 baggage, mail, and express, 1,520 freight, 53 caboose, and 173 other cars; making a total of 1,797 cars in service.

The records of the General Land Office show that to June 30, 1891, there had been patented to this company 603,186.34 acres of land, but as the company makes no report to this office of the operations of its land department, the disposition thereof and the amount realized thereon can not be stated.

The following statements show the financial condition of the company on June 30, 1891:

LIABILITIES.

Consolidated mortgage 6 per cent bonds	\$6,775,000.00
Quincy and Palmyra R. R. bonds, 8 per cent.....	433,000.00
Kansas City and Cameron R. R. bonds, 10 per cent.....	1,200,000.00
Accounts and bills payable	366,608.83
Land department.....	18,107.48
Total debt.....	\$8,792,716.31
Capital stock	14,251,724.00
Total stock and debt.....	23,044,440.31

ASSETS.

Construction	18,036,536.62
Equipment	3,449,695.07
Farmers' Loan and Trust Co	408,000.00
Investments	247,872.69
Accounts and bills receivable.....	425,818.81
Accounts of doubtful value.....	3,465.56
Profit and loss	590,973.90
Material on hand	249,945.92
Balance of cash accounts.....	144,559.69
Total assets.....	23,556,868.26
Surplus.....	512,427.95

Earnings and operating expenses for year ending June 30, 1891.

EARNINGS.

Passenger	\$641,770.85
Freight.....	1,450,270.32
Mail, express, and miscellaneous	467,530.47
Total earnings.....	2,559,571.64

EXPENSES.

Operating expenses, not including taxes.....	1,849,382.31
Surplus	710,189.33

LITTLE ROCK AND MEMPHIS RAILROAD COMPANY.

The main line of this road extends from Memphis, Tenn., to Argenta, Ark., a distance of 131.29 miles. There are 14.22 miles of side track. During the year 275 tons of new rails and 30,294 new cross-ties were placed in the track. The expenditure for grading, ditching, and filling amounted to \$12,688.43.

The equipment consists of 16 locomotives, 5 of which are equipped with train-brakes; 6 first class, 7 second class, and 7 baggage, mail, and express cars, making a total of 20 cars in the passenger service. In the freight service there are 123 box, 17 stock, 40 coal, 93 flat, and 2 refrigerator cars, making a total of 275 cars in this service. In road-repair service there are 1 derrick and 29 dump, gravel, and construction cars.

The records of the General Land Office show that to June 30, 1891, there had been patented to this company by the Government 174,567.75 acres of land, but the report of the company only gives the transactions of its land department for the fiscal year, during which 2,436 acres were sold and the cash receipts amounted to \$8,595.16. There remained outstanding on account of time sales the sum of \$9,563.76.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First-mortgage bonds	\$3, 190, 000. 00
Interest on same, due and accrued	4, 687. 50
Pay rolls and vouchers	38, 812. 87
Land department	40, 336. 10
Total debt	\$3, 273, 836. 47
Capital stock	3, 250, 000. 00
Total stock and debt	6, 523, 836. 47

ASSETS.

Cost of road, fixtures, and equipment	6, 396, 881. 26
Land contracts, land cash, etc	9, 563. 76
Fuel, material, and stores on hand	36, 255. 90
Cash on hand	94, 689. 64
Miscellaneous investments	2, 000. 00
Accounts receivable	62, 690. 83
Total assets	6, 602, 081. 39
Surplus	78, 244. 92

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$672, 155. 87
Interest on miscellaneous investments	1, 993. 85
Receipts of the land department	7, 378. 24
Total	681, 527. 96

EXPENDITURES.

Operating expenses.....	\$506,424.37
Interest on first-mortgage bonds.....	159,500.00
New construction	14,194.30
Expenses of the land department	1,943.00
Total.....	<u>\$682,061.67</u>
Deficit.....	<u>533.71</u>

Comparative statement of the earnings and expenses of the Little Rock and Memphis Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$265, 201. 07	\$233, 134. 21	\$32, 066. 86	.....
Freight	369, 047. 60	311, 062. 10	57, 985. 50	.....
Mail	15, 623. 98	15, 205. 23	418. 75	.....
Express	19, 970. 22	20, 772. 99	.....	\$802. 77
Miscellaneous	2, 313. 00	2, 360. 75	.....	47. 75
Total	672, 155. 87	582, 535. 28	89, 620. 59	.....
EXPENSES.				
Maintenance of way and structures.....	111, 961. 98	96, 315. 63	15, 646. 35	.....
Maintenance of equipment.....	45, 576. 60	37, 383. 99	8, 192. 61	.....
Conducting transportation.....	244, 427. 54	207, 921. 13	36, 506. 41	.....
General expenses and taxes.....	104, 458. 25	90, 138. 44	14, 319. 81	.....
Total	506, 424. 37	431, 759. 19	74, 665. 18	.....
Net earnings	165, 731. 50	150, 776. 09	14, 955. 41	.....
Average miles operated.....	132	132	.....	.....
Earnings per mile	\$5, 092. 09	\$4, 413. 14	\$678. 95	.....
Expenses per mile	3, 836. 55	3, 270. 90	565. 65	.....
Net earnings per mile.....	1, 255. 54	1, 142. 24	113. 30	.....
Percentage of expenses to earnings	75. 34	74. 11	1. 23	.....

MISSOURI, KANSAS AND TEXAS RAILWAY COMPANY.

This company has failed to submit, on the form prescribed by this Bureau, any report of its operations for the year ending June 30, 1891.

MISSOURI PACIFIC RAILWAY COMPANY.

The main line of this road extends from St. Louis, Mo., to Omaha, Nebr., a distance of 496.37 miles. The company also owns various branches in Missouri, Kansas, and Nebraska, aggregating 731.84 miles in length, and leases 299.53 miles, making a total of 1,257.74 miles of road owned and operated. There are 30 miles of double track, 212.96 miles of sidings on the main line, and 145.74 miles on the branch lines, making the total length of track 1,916.44 miles. Steel rails are laid upon 1,467.05 miles of the road, and iron rails upon 60.69 miles. The ballast consists of 130.96 miles of stone, 216.57 miles of gravel, 72.55 miles of cinders, and 1,107.66 miles of earth. There are 1,875.71 miles of barbed-wire fencing and 7.84 miles of board fencing.

During the year 1,466 tons of steel rails were laid, at a cost of \$67,947.86, and 333,748 cross-ties were placed in the track, at a cost of \$168,935.14. Betterments to the railway and equipment were effected through expense accounts, no separate improvement accounts having been kept.

The equipment consists of 315 locomotives, 88 of which are equipped with Westinghouse brakes; 2 parlor, 56 sleeping, 48 chair, 97 passenger, 14 mail, 43 baggage, 46 combination, and 7 officers' cars, making a total of 313 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller platforms. In the freight service there are 5,217 box, 955 stock, 3,851 coal, 841 flat, 369 refrigerator, 15 fruit, and 146 caboose cars, making a total of 11,394 cars in this service. There are 43 cars used in road-repair service. There were added to the equipment during the year 10 locomotives, 19 passenger, and 1,007 freight cars.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

Funded debt	\$51,376,000.00	
Interest on same, due and unpaid	42,437.50	
Interest on same, accrued, not due.....	840,171.66	
Bills and accounts payable	4,609,033.55	
Pay rolls and vouchers.....	2,557,951.99	
Due other companies on account of traffic	148,924.19	
Total debt.....	59,574,518.89	
Capital stock	47,432,850.00	
Total stock and debt		\$107,007,368.89

ASSETS.

Road fixtures and equipment.....	48,820,642.38	
Real estate other than road	739,941.68	
Fuel, materials, and stores on hand.....	825,190.40	
Cash on hand.....	426,821.17	
Stocks and bonds owned by company.....	53,709,061.21	
Bills receivable.....	29,090.73	
Accounts receivable	6,711,028.15	
Total assets.....		111,261,775.72
Surplus.....		4,254,406.83

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$9,946,154.87	
Profits on stocks and bonds of other companies	1,135,217.67	
Terminal facilities	166,957.52	
Sundry amounts.....	2,515,471.12	
Total.....		\$13,763,801.18

EXPENDITURES.

Operating expenses, rentals, and taxes.....	\$7,529,980.87
Interest on funded debt.....	2,773,143.34
Interest on other debt	456,469.29
Branch lines—deficit.....	340,165.97
Expense account, Traffic Association.....	27,455.32
Dividends Nos. 40 to 43, inclusive	1,872,532.00
Compensation retained by United States	594.29
Discount and premium.....	115,309.75
Sundry expenses.....	451,040.23
Total.....	\$13,566,691.06
Surplus	197,110.12

Comparative statement of the earnings and expenses of the Missouri Pacific Railway Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$2, 170, 978. 61	\$2, 077, 694. 96	\$93, 283. 65	.....
Freight	6, 328, 399. 68	6, 622, 320. 89	.....	\$293, 921. 21
Mail	351, 133. 28	334, 198. 07	16, 935. 21	.....
Express	191, 383. 47	192, 836. 87	.....	1, 453. 40
Miscellaneous	904, 259. 83	864, 492. 22	39, 767. 61	.....
Total	9, 946, 154. 87	10, 091, 543. 01	.....	145, 388. 14
EXPENSES.				
Maintenance of way and structures.....	1, 376, 614. 94	1, 347, 520. 36	29, 094. 58	.....
Maintenance of equipment	1, 431, 555. 24	1, 353, 409. 12	78, 146. 12	.....
Conducting transportation.....	3, 704, 930. 51	3, 328, 281. 70	376, 648. 81	.....
General expenses, taxes, and rentals	1, 016, 880. 18	1, 305, 255. 51	.....	288, 375. 33
Total	7, 529, 980. 87	7, 334, 466. 69	195, 514. 18	.....
Net earnings.....	2, 416, 174. 00	2, 757, 076. 32	.....	340, 902. 32
Average miles operated.....	1, 422. 00	1, 422. 00	.....	.....
Earnings per mile	\$6, 994. 48	\$7, 096. 72	.....	\$102. 24
Expenses per mile.....	5, 295. 34	5, 157. 85	137. 49	.....
Net earnings per mile	1, 699. 14	1, 938. 87	.....	239. 73
Percentage of expenses to earnings.....	75. 71	72. 68	3. 03	.....

NORTHERN PACIFIC RAILROAD COMPANY.

This company owns 3,299.47 miles of road and leases 1,049.39 miles of branch lines, making a total of 4,348.86 miles operated. The main line extends from Ashland, Wis., to Portland, Oregon, and Wallula Junction, Washington, a distance of 2,137.14 miles. There are 49.33 miles of double track, 7.70 miles of second track, 7.70 miles of third track, 408.91 miles of sidings on main line, and 277 miles of sidings on branch lines, making the total length of track 5,099.50 miles. Steel rails are laid upon 4,493.49 miles of the track and iron rails upon the remainder. The ballast consists of 58.15 miles of stone and cinder, 1,354 miles of gravel, and the remainder of earth. There are 1,096.71 miles of barbed wire and board fencing, and 210.43 miles of snow fencing, and 2.72 miles of snow sheds.

Branch lines aggregating 261.53 miles in length were constructed during the past year. The total expenditures for additions and better-

ments to the railway during the same period amounted to \$8,448,547.92, and for new equipment to \$2,212,697.63. There were placed in the track 35,302.39 tons of steel rails, at a cost of \$200,997.83, and 1,673,084 new cross-ties, at a cost of \$538,505.30.

There were added to the rolling stock during the year 88 locomotives, 16 first-class, 4 second-class; 2 baggage, 1 express, 1 officer's, 1,533 box, 58 oil, 242 coal, 713 flat, 15 fruit, 35 caboose, 2 wrecking, and 5 dump, gravel, and construction cars and 2 snow plows. On June 30, 1891, the rolling stock consisted of 495 locomotives, 477 of which are equipped with air brakes; 24 dining, 45 sleeping, 1 chair, 68 first-class, 45 second-class, 45 emigrant, 9 mail, 45 baggage, 19 express, 45 combination, and 16 officer's cars, making a total of 362 cars in the passenger service, all of which are equipped with air brakes and automatic couplers. In the freight service there are 6,778 box, 330 oil, 849 stock, 1,532 coal, 4,045 flat, 166 refrigerator, 30 fruit, 224 logging trucks and 335 caboose cars, making a total of 14,289 cars in this service, 8,433 of which are equipped with air brakes and 2,900 have automatic couplers, in addition to air brakes. In road-repair service there are 2 station, 1 derrick, 27 dump, gravel, and construction, 26 wrecking, and 87 boarding cars, and 7 snow plows.

The company reports that to June 30, 1891, there had been patented by the United States 1,594,899.77 acres of land and 21,897,823.75 acres had been certified by the United States land officials, making a total of 23,492,723.52 acres. There had been sold 7,753,491.63 acres and the total cash receipts from all sales to date amounted to \$28,195,368.26. There remained outstanding on account of time sales the sum of \$5,669,890.05.

The engineer of this Bureau inspected the road between Duluth, Minn., and Ashland, Wis., and from St. Paul to Moorhead, Minn., in May last. His report thereon will be found in Appendix No. 1.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First-mortgage bonds	\$44, 482, 000. 00
Other funded debt	80, 469, 500. 00
Interest on funded debt, due and unpaid.....	1, 545, 028. 80
Interest on funded debt, accrued, not due.....	558, 302. 50
Dividends unpaid.....	374, 298. 00
Bills payable	11, 350, 000. 00
Accounts payable.....	2, 911, 829. 34
Payrolls.....	1, 326, 789. 94
Due other companies on account of traffic.....	87, 151. 12
Rentals accrued—not due	56, 817. 75
Guaranty to branch lines.....	604, 049. 81
Land sales applicable to sinking fund when collected.	2, 778, 289. 44
Total debt	\$146, 544, 056. 70
Capital stock	85, 658, 612. 45
Total stock and debt.....	232, 202, 669. 15

ASSETS.

Cost of road and fixtures	\$174, 427, 408. 36
Cost of equipment	19, 384, 187. 24
Invested in branch lines, owned in part	14, 700, 679. 00
Land contracts, land cash, etc	5, 669, 890. 05
Fuel, material, and stores on hand	2, 149, 257. 72
Cash on hand	2, 406, 810. 84
Company's stocks and bonds owned by company	22, 335. 28
Other stocks and bonds	6, 558, 715. 78
Cash in hands of trustees applicable to retire bonds..	197, 416. 85
Bonds in hands of trustees—Equipment Company....	687, 000. 00
Cash in hands of trustees—sinking fund	808, 065. 32
Bills receivable	6, 411, 855. 69
Accounts receivable	3, 834, 699. 09
Due from other companies on account of traffic	222, 960. 52
Suspense accounts, balance	57, 838. 83
Total assets	<u>\$237, 539, 120. 57</u>
Surplus	5, 336, 451. 42

Revenue and expenditures for year ending June 30, 1891.

REVENUE.

Earnings	\$25, 398, 999. 20
Dividends on stocks	695, 248. 67
Interest on bonds	5, 298. 02
Profits on miscellaneous investments	33, 003. 57
Adjustment of sundry accounts	116, 037. 03
Receipts of land department applicable to sinking fund	478, 912. 84
Increase in funded debt	19, 446, 721. 28
Increase in current liabilities	3, 910, 825. 58
Transferred from sinking fund	3, 320, 366. 15
Miscellaneous receipts	917, 439. 04
Total	<u>\$54, 322, 851. 38</u>

EXPENDITURES.

Operating expenses	\$15, 510, 608. 16
Interest on first-mortgage bonds	2, 692, 020. 00
Interest on other funded debt	3, 765, 054. 28
Rentals	2, 038, 755. 99
Other charges	656, 668. 40
Permanent improvements	153, 639. 95
Branch roads	10, 020, 393. 90
New construction	6, 065, 215. 94
New equipment	5, 212, 697. 63
Dividends	1, 472, 466. 00
Discount on bonds sold	2, 383, 331. 98
Reduction of funded debt	3, 715, 000. 00
Decrease in preferred stock	324, 711. 35
Securities purchased	2, 058, 559. 15
Miscellaneous	1, 380, 448. 71
Total	<u>57, 449, 571. 44</u>
Deficit	3, 126, 720. 06

Comparative statement of the earnings and expenses of the Northern Pacific Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$6, 645, 322. 09	\$6, 148, 729. 02	\$496, 593. 07	.....
Freight.....	17, 388, 954. 97	15, 447, 885. 46	1, 941, 069. 51	.....
Mail.....	479, 574. 88	451, 781. 32	27, 793. 56	.....
Express.....	378, 200. 57	330, 822. 47	47, 378. 10	.....
Miscellaneous.....	506, 946. 69	231, 284. 51	275, 662. 18	.....
Total	25, 398, 999. 20	22, 610, 502. 78	2, 788, 496. 42	.....
EXPENSES.				
Maintenance of way and structures	4, 134, 148. 31	3, 514, 308. 73	619, 839. 58	.....
Maintenance of equipment.....	2, 250, 230. 47	2, 032, 646. 43	217, 584. 04	.....
Conducting transportation.....	6, 993, 254. 07	6, 132, 393. 63	860, 860. 44	.....
General expenses and taxes.....	2, 132, 975. 31	1, 784, 397. 58	348, 577. 73	.....
Total	15, 510, 608. 16	13, 463, 746. 37	2, 046, 861. 79	.....
Net earnings.....	9, 838, 391. 04	9, 146, 756. 41	741, 634. 63	.....
Miles operated	4, 348. 86	4, 042. 41	306. 45	.....
Earnings per mile	\$5, 840. 38	\$5, 593. 32	\$247. 06	.....
Expenses per mile.....	3, 566. 59	3, 330. 62	235. 97	.....
Net earnings per mile.....	2, 273. 79	2, 262. 70	11. 09	.....
Percentage of expenses to earnings.....	61. 06	59. 54	1. 52	.....

OREGON AND CALIFORNIA RAILROAD COMPANY.

The main line of this road extends from Portland, Oregon, to the California State line, a distance of 367.01 miles, with branches from Portland to Corvallis, 96.80 miles, Albany Junction 11.50 miles, and Woodburn to Coburg, 80.04 miles, making a total of 555.44 miles owned and operated. The branch from Woodburn to Coburg was purchased from the Oregonian Railroad Company in December, 1890. The main line forms a part of the through line of the Southern Pacific Company between San Francisco, Cal., and Portland, Oregon.

There are 36.05 miles of sidings on the main line and 17.49 miles on the branches. Steel rails are laid upon 463.92 miles and iron rails upon 145.07 miles. There were placed in the track during the past year 540 tons of steel rails at a cost of \$28,083.03, and 241,270 cross-ties at a cost of \$60,317.50. There are 489 miles of the track ballasted with gravel, the remainder being of earth.

The equipment consists of 53 locomotives, all of which are equipped with Westinghouse brakes; 6 sleeping, 32 first class, 2 second class, 10 baggage, mail, and express, 9 baggage, 2 express, 2 combination passenger and baggage, and 1 officer's car, making a total of 64 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller platforms. In the freight service there are 441 box, 23 stock, 315 flat, 50 combination, 23 fruit, and 14 caboose cars, making a total of 866 cars in this service, 213 of which are equipped with Westinghouse brakes. There are 34 dump, gravel, and construction cars, 3 car tenders and 1 pile driver used in road-repair service.

The company reports that to June 30, 1891, there had been patented to it by the United States 323,068.68 acres of land, and that there had been sold 298,261.45 acres, the total cash receipts from all sales amounting to \$707,556.88. There remained outstanding on account of time sales \$449,996 40 principal and \$153,031.65 interest, making a total of \$603,028.05.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First-mortgage bonds.....	\$16,645,000.00
Interest remaining unpaid	1,995.78
Dividends unpaid.....	2,570.73
Accounts payable.....	27,024.63
Total debt.....	\$16,676,591.14
Capital stock	19,000,000.00
Total stock and debt.....	35,676,591.14

ASSETS.

Road, fixtures and equipment.....	33,602,964.55
Real estate, other than road.....	38,896.99
Land contracts, time sales	449,996.40
Sinking funds in hands of trustees.....	174,501.14
Bills receivable	775.00
Accounts receivable.....	1,464,966.28
Cash on hand.....	4,965.13
Total assets.....	35,737,065.49
Surplus.....	60,474.35

Comparative statement of the earnings and expenses of the Oregon and California Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$1, 079, 830. 00	\$1, 011, 550. 90	\$68, 279. 10	.....
Freight.....	843, 337. 96	728, 117. 12	115, 220. 84	.....
Mail	87, 053. 72	68, 293. 20	18, 760. 52	.....
Express	39, 598. 77	34, 726. 45	4, 872. 32	.....
Miscellaneous	35, 263. 34	47, 712. 45	.....	12, 449. 11
Total	2, 085, 083. 79	1, 890, 400. 12	194, 683. 67	.....
EXPENSES,				
Maintenance of way and structures	638, 714. 30	475, 231. 46	163, 482. 84	.....
Maintenance of equipment	156, 922. 03	116, 342. 64	40, 579. 39	.....
Conducting transportation	726, 413. 64	530, 120. 74	196, 292. 90	.....
General expenses and taxes	181, 817. 27	175, 633. 09	6, 184. 18	.....
Total	1, 703, 867. 24	1, 297, 327. 93	406, 539. 31	.....
Net earnings	381, 216. 55	593, 072. 19	.....	211, 855. 64
Average miles operated.....	514. 37	474. 80	39. 57	.....
Earnings per mile	\$4, 053. 66	\$3, 981. 47	\$72. 19	.....
Expenses per mile	3, 312. 53	2, 732. 37	580. 16	.....
Net earnings per mile	741. 13	1, 249. 10	.....	507. 97
Percentage of expenses to earnings.....	81. 71	68. 63	13 08	.....

ST. JOSEPH AND GRAND ISLAND RAILROAD COMPANY.

This company has failed to submit, on the form prescribed by this Bureau, any report of its operations for the year ending June 30, 1891.

ST. LOUIS, IRON MOUNTAIN AND SOUTHERN RAILWAY COMPANY.

The main line of this road extends from St. Louis, Mo., to Texarkana, Ark., a distance of 489.78 miles. The company also owns 715.06 miles of branch lines in Arkansas, Missouri, and Tennessee, and leases 342.38 miles in Arkansas and Kansas, making a total of 1,547.22 miles owned and operated. Included in the foregoing leased lines are the Little Rock and Fort Smith Railway, 173.61 miles, and the Kansas and Arkansas Valley Railway, 164.83 miles in length, the earnings and expenses of which have been merged with those of the lessee company since January 1, 1890.

There are 10.46 miles of double track, 118.04 miles of sidings on the main line, and 119.93 miles of sidings on the branch lines. Steel rails are laid upon 1,240.04 miles and iron rails upon 307.18 miles of the road. The ballast consists of 37.34 miles of stone, 315.48 miles of gravel, 59.92 miles of cinder, and the remainder of earth. There are 1,231.96 miles of barbed wire and 61.81 miles of board fencing.

During the year 6,749 tons of steel rails were laid, at a cost of \$261,264.26, and 541,556 new cross ties were placed in the track, at a cost of \$184,475.88. Additions and betterments to the railway and equipment were effected through expense accounts, no improvement account having been kept.

The equipment consists of 196 locomotives, 80 of which are equipped with Westinghouse brakes; 35 first-class and 31 second-class passenger, 10 mail, 44 baggage, 9 combination, and 3 officers' cars, making a total of 132 cars in the passenger service, 122 of which are equipped with Westinghouse brakes and Miller platforms. In the freight service there are 4,160 box, 426 stock, 958 coal, 613 flat, 327 refrigerator, and 114 caboose cars, making a total of 6,598 cars in this service. There are 42 cars used in road-repair service. There were added to the equipment during the year 1 passenger and 255 freight cars and 10 freight locomotives.

The company reports that it had received from the Government a grant of 68,053.33 acres of land in Missouri, 48,834.50 acres of which had been sold for \$220,853.23, and there remained outstanding on account of time sales the sum of \$30,511.09. In Arkansas there had been patented to the company by the Government 1,327,704.86 acres of land, 833,744.32 acres of which had been sold for \$2,128,668.67, and there remained outstanding on account of time sales the sum of \$511,909.04. The Little Rock and Fort Smith Railway Company received a grant of 1,057,762.79 acres of land, and had sold 532,164.36 acres for \$1,636,326.72, and there remained outstanding on account of time sales the sum of \$403,343.21.

The main line of the road between St. Louis, Mo., and Texarkana, Ark., was inspected by the engineer of this Bureau in April last. His report thereon will be found in Appendix No. 1.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

Funded debt.....	\$39,763,485.71	
Interest on same, due and unpaid	38,701.71	
Interest on same, accrued, not due	533,498.17	
Bills payable	555,601.92	
Accounts payable.....	2,714,778.22	
Car-trust certificates.....	913,000.00	
Total debt.....		\$44,519,065.73
Capital stock		25,784,200.00
Total stock and debt.....		70,303,265.73

ASSETS.

Road, fixtures, and equipment	60,944,299.65	
Real estate other than road	521,421.72	
Land contracts, land cash, etc.....	2,125,593.36	
Cash on hand	13,537.73	
Stocks and bonds owned by company.....	8,577,912.21	
Bills receivable	41,860.30	
Accounts receivable.....	1,103,757.63	
Total assets.....		73,328,382.60
Surplus		3,025,116.87

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$11,337,283.20	
Profits on stocks and bonds of other companies	5,252.00	
Sundry amounts.....	49,230.13	
Total		\$11,391,765.33

EXPENDITURES.

Operating expenses, rentals, and taxes.....	8,114,444.29	
Interest on funded debt	2,339,486.53	
Expenses of Traffic Association.....	7,201.68	
Dividend No. 3, December 31, 1890.....	773,293.50	
Compensation retained by United States.....	14,139.63	
Discount and premium.....	650,453.47	
Sundry amounts	130,847.71	
Total		12,029,866.81
Deficit.....		638,101.48

Comparative statement of the earnings and expenses of the St. Louis, Iron Mountain and Southern Railway Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger.....	\$2, 259, 666. 80	\$1, 891, 174. 76	\$368, 492. 04	.....
Freight.....	8, 280, 924. 69	7, 218, 136. 69	1, 062, 788. 00	.....
Mail.....	231, 077. 58	207, 375. 43	23, 702. 15	.....
Express.....	236, 800. 04	209, 404. 19	27, 395. 85	.....
Miscellaneous.....	328, 814. 09	284, 143. 58	44, 670. 51	.....
Total.....	11, 337, 283. 20	9, 810, 234. 65	1, 527, 048. 55	.....
EXPENSES.				
Maintenance of way and structures.....	1, 756, 453. 56	1, 468, 683. 73	287, 769. 83	.....
Maintenance of equipment.....	1, 255, 764. 61	987, 472. 54	268, 292. 07	.....
Conducting transportation.....	3, 918, 222. 16	3, 021, 733. 12	896, 489. 04	.....
General expenses and taxes.....	547, 924. 65	463, 485. 37	84, 439. 28	.....
Total.....	7, 478, 364. 98	5, 941, 374. 76	1, 536, 990. 22	.....
Net earnings.....	3, 858, 918. 22	3, 868, 859. 89	.....	\$9, 941. 67
Average miles operated.....	1, 549. 66	1, 545. 00	.....	.....
Earnings per mile.....	\$7, 315. 98	\$6, 350. 19	\$965. 79	.....
Expenses per mile.....	4, 825. 81	3, 845. 55	980. 26	.....
Net earnings per mile.....	2, 490. 17	2, 504. 64	.....	\$14. 47
Percentage of expenses to earnings.....	65. 96	60. 55	5. 41	.....

ST. LOUIS AND SAN FRANCISCO RAILWAY COMPANY.

This company has failed to submit, on the form prescribed by this Bureau, any report of its operations for the year ending June 30, 1891.

ST. PAUL AND DULUTH RAILROAD COMPANY.

The main line of this road extends from St. Paul to Duluth, Minn., a distance of 155 miles. The company also owns 23.50 miles and leases 64.25 miles of branch lines, making a total of 242.75 miles operated at the close of the year ending June 30, 1891.

That portion of the road between Northern Pacific Junction and Duluth, 23½ miles, is owned jointly with the Northern Pacific Railroad Company.

The main line was inspected in June, 1891, by the engineer of this Bureau, whose report will be found in Appendix No. 1.

During the year there were laid 931 tons of steel rails, at a cost of \$30,890.02. Sixty-one thousand one hundred and twenty-seven cross-ties were placed in the track, at a cost of \$14,395.40. There was expended for additions and betterments the sum of \$5,706.43, which was charged to new construction.

At the close of the year the rolling stock consisted of 66 locomotives, 27 of which were equipped with Westinghouse brakes; 72 cars in the passenger service, all of which were equipped with Westinghouse brakes and Miller couplers and platforms. There were 2,388

cars in the freight department, and 7 cars in the road-repair service. There were added during the year 1 baggage, 1 combination, 4 refrigerator, and 6 furniture cars, at a total cost of \$9,184.11.

The number of acres of land received by patent from the Government to June 30, 1891, was 815,482.75, and from the State of Minnesota 690,333, a total of 1,505,815.75 acres. There had been sold 396,080.93 acres, the total receipts from all sales amounting to \$1,874,584.21. There was outstanding, on account of time sales, the sum of \$75,463.23.

The following statement shows the financial condition of the company on June 30, 1891:

LIABILITIES.

First-mortgage bonds	\$1, 000, 000. 00	
Second-mortgage bonds.....	2, 000, 000. 00	
Interest on same, due and accrued.....	900. 00	
Interest on same, accrued, not due.....	45, 833. 33	
Other funded debt (bonds guaranteed by company) ..	710, 000. 00	
Interest on other funded debt, accrued, not due.....	14, 633. 33	
Dividends unpaid.....	2, 232. 75	
Miscellaneous.....	107, 084. 37	
Pay rolls and vouchers.....	197, 402. 10	
Sinking fund for redemption of Taylor Falls and Lake Superior R. R. bonds.....	95, 111. 79	
Cash received from Taylor Falls and Lake Superior R. R. lands, State grant	27, 495. 05	
Land and stumpage income expended prior to July 1, 1888, on improvements, construction, and equipment	788, 566. 40	
Land accounts—deferred receipts.....	106, 204. 98	
Total debt		\$5, 095, 464. 10
Capital stock.....		10, 031, 018. 11
Total stock and debt.....		15, 126, 482. 21

ASSETS.

Cost of road, fixtures, and equipment.....	12, 792, 123. 59	
Fuel, material, and stores on hand	48, 596. 54	
Cash on hand.....	608, 091. 15	
Stocks and bonds	1, 534, 405. 39	
Miscellaneous investments	37, 396. 88	
Sinking fund in hands of trustees (company).....	95, 111. 79	
Bills receivable (land contracts and notes).....	108, 156. 44	
Accounts receivable (due from agents).....	110, 594. 58	
Due from other companies on account of traffic.....	74, 137. 33	
Due from other companies (individuals).....	21, 839. 50	
Other assets	112, 576. 65	
Total assets.....		15, 543, 029. 84
Surplus.....		416, 547. 63

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$1,621,939.04	
Dividends on stocks of other companies	4,200.00	
Interest on bonds of other companies	189.34	
Receipts of the land department	274,754.80	
Interest and exchange	8,237.72	
Rentals	12,519.77	
Total		\$1,921,840.67

EXPENDITURES.

Operating expenses, including taxes	1,071,192.45	
Interest on first-mortgage bonds	50,000.00	
Interest on second-mortgage bonds	100,000.00	
Dividends	348,749.50	
Expenses of the land department	25,208.90	
Rentals	93,548.00	
Other expenditures	31,900.13	
Total		1,720,598.98
Surplus		201,241.69

Comparative statement of the earnings and expenses of the St. Paul and Duluth Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$512, 156. 05	\$393, 529. 62	\$118, 626. 43	.....
Freight	1, 054, 954. 66	966, 363. 49	88, 591. 17	.....
Mail	18, 312. 34	18, 262. 52	49. 82	.....
Express	22, 500. 00	22, 500. 00	.....	.....
Miscellaneous	14, 015. 99	9, 871. 60	4, 144. 39	.....
Total	1, 621, 939. 04	1, 410, 527. 23	211, 411. 81	.....
EXPENSES.				
Maintenance of way and structures	218, 415. 91	219, 968. 38	.....	\$1, 552. 47
Maintenance of equipment	145, 357. 28	144, 728. 05	629. 23	.....
Conducting transportation	530, 183. 57	493, 715. 89	36, 467. 68	.....
General expenses and taxes	177, 235. 69	159, 046. 59	18, 189. 10	.....
Total	1, 071, 192. 45	1, 017, 458. 91	53, 733. 54	.....
Net earnings	550, 746. 59	393, 068. 32	157, 678. 27	.....
Average miles operated	242. 75	247. 75	.....	5. 00
Earnings per mile	\$6, 681. 52	\$5, 693. 34	\$988. 18	.....
Expenses per mile	4, 412. 74	4, 106. 79	305. 95	.....
Net earnings per mile	2, 268. 78	1, 586. 55	682. 23	.....
Percentage of expenses to earnings	66. 04	72. 13	.....	6. 09

ST. PAUL, MINNEAPOLIS AND MANITOBA RAILWAY COMPANY.

This road and all its appurtenances is leased to and has been operated by the Great Northern Railway Company since February 1, 1890, the latter company agreeing to pay a rental sufficient to provide for annual dividends of 6 per cent on the entire capital stock of the lessor company, for interest on bonds, taxes, assessments, and all other current obligations.

The main line of the road extends from St. Paul to St. Vincent and Neche, Minn., connecting with lines running into Winnipeg, Manitoba, and westerly from Grand Forks, N. Dak., to Great Falls, Mont., with connections to Helena and Butte, Mont. There are 2,807.64 miles of single track, 26.92 miles of second track, 8.10 miles of third track, 8.10 miles of fourth track, and 379.44 miles of sidings. Steel rails are laid upon 2,543.09 miles, and iron rails upon 307.67 miles of the track.

The company reports that it has received by patent 3,199,498.37 acres of land, and that it had disposed of 1,842,955.15 acres, the total cash receipts from all sales to June 30, 1891, amounting to \$5,875,639.71. The company still owns 990,682.30 acres, 365,860.92 acres having been decreed to the Northern Pacific Railroad by the United States Supreme Court. There remained outstanding on account of time sales the sum of \$1,214,207.96.

The following statement shows the financial condition of the company, June 30, 1891:

LIABILITIES.	
Funded debt.....	\$62,825,969.70
Pay rolls and vouchers	12,942.72
Sinking fund, first-mortgage bonds.....	4,284,531.43
Sinking fund, consolidated-mortgage bonds.....	72,761.21
Total debt.....	\$67,196,205.06
Capital stock	20,000,000.00
Total stock and debt.....	87,196,205.06
ASSETS.	
Road and fixtures.....	71,336,501.67
Equipment	7,705,326.85
Premium on bonds redeemed	200,000.00
Cash on hand.....	170,235.36
Pacific extension bond account	9,696,969.70
Total assets.....	89,109,033.58
Surplus.....	1,912,828.52

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.	
Rental of road.....	\$4,084,672.33
Receipts of the land department.....	370,769.50
Receipts from sale of property.....	64,732.10
Total.....	\$4,520,173.93

EXPENDITURES.

Maintenance of organization	\$11, 073. 99
Interest on funded debt	2, 873, 598. 34
Sinking-fund requirements, company	292, 729. 56
Sinking-fund consolidated mortgage	64, 732. 10
Dividends	1, 200, 000. 00
Expenses of the land department	64, 039. 94
Premium on bonds redeemed	14, 000. 00
Total	\$4, 520, 173. 93

SOUTHERN PACIFIC RAILROAD COMPANY OF CALIFORNIA.

The mileage of this road, June 30, 1891, was as follows:

Southern Division:

	Miles.
Alcalde to Yuma	551. 13
Los Angeles to San Pedro	24. 24
Los Angeles to Santa Monica	16. 27
Saugus to Elwood	91. 50
Florence to Santa Ana	27. 60
Berenda to Raymond	21. 00
Stockton to Milton	30. 00
Near Martinez to 80 miles of Los Banos	104. 61
Miraflores to Tustin	10. 80
Fresno to Paso	104. 26
Studebaker to Whittier	5. 90
Thenard to Long Beach	3. 80
Peters to Merced	59. 60
Avon to San Ramon	19. 70
Ontario to Chino	5. 70
	1, 076. 11

Coast Division:

San Francisco to Tres Pinos	100. 50
Carnadero to Santa Margarita	153. 10
Castroville to Lake Majella	19. 52
Pajaro to Santa Cruz	21. 20
Aptos to Monte Vista	7. 44
Hillsdale to Almaden	7. 80
	309. 56
Total	1, 385. 67

A portion of the southern division was inspected in May last by the engineer of this Bureau, whose report thereon will be found in Appendix No. 1.

Steel rails are laid upon 1,302.15 miles of the road, and iron rails upon 83.52 miles. During the year 56,540.18 tons of steel rails were placed in the track, at a cost of \$311,015.74, and 269,873 cross-ties, at a cost of \$118,819.90.

The sum of \$8,037,070.07 was expended on account of additions and betterments to the railway, \$7,030,050 of which was for the construction of 140.60 miles of new road. The expenditures in connection with the

reconstruction of the road through the Soledad Cañon amounted to \$364,839.11.

The equipment consists of 242 locomotives, all of which are equipped with Westinghouse brakes; 3 parlor, 50 sleeping, 13 tourist sleepers, 148 first class, 30 second class, 1 mail, 25 baggage, 29 baggage, mail, and express, 8 combination passenger and baggage, and 2 officers' cars, making a total of 309 cars in the passenger service, all of which are equipped with Westinghouse brakes and Miller platforms. In the freight service there are 3,031 box, 254 coal, 814 flat, 492 combination, 356 fruit, and 87 caboose cars, making a total of 5,034 cars in this service, 4,078 of which are equipped with Westinghouse brakes. There are 65 cars used in road-repair service.

The company reports that to June 30, 1891, it had received by patent from the United States 1,236,834.33 acres of land, and that it had disposed of 2,887,766.13 acres, the total cash receipts from all sales to date amounting to \$7,522,536.70. There remained outstanding on account of time sales the sum of \$3,083,336.19.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First mortgage bonds.....	\$46,616,500.00
Accounts payable.....	2,128,913.30
Trustees' land grant mortgage.....	602,416.06
Sinking funds uninvested.....	15,180.00
Total debt	\$49,363,009.36
Capital stock and debt	64,719,900.00
Total stock and debt.....	114,082,909.36

ASSETS.

Road, fixtures, and equipment.....	122,091,153.09
Land contracts, land cash, etc.....	2,901,220.62
Cash on hand	266,621.43
Sinking funds in hands of trustees.....	1,173,226.06
Bills and accounts receivable	2,547.71
Total assets.....	126,434,768.91
Surplus.....	12,351,859.55

Comparative statement of the earnings and expenses of the Southern Pacific Railroad Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger.....	\$2, 964, 064. 41	\$2, 799, 319. 67	\$164, 744. 74	.....
Freight.....	5, 061, 868. 57	4, 739, 689. 95	322, 178. 62	.....
Mail.....	143, 587. 15	124, 228. 52	19, 358. 63	.....
Express.....	103, 093. 62	92, 504. 94	10, 588. 68	.....
Miscellaneous.....	414, 396. 24	560, 782. 23	.....	\$146, 385. 99
Total.....	8, 687, 009. 99	8, 316, 525. 31	370, 484. 68	.....
EXPENSES.				
Maintenance of way and structures.....	1, 279, 353. 89	1, 494, 279. 82	.....	214, 925. 93
Maintenance of equipment.....	748, 069. 16	716, 636. 87	31, 432. 29	.....
Conducting transportation.....	2, 734, 654. 16	2, 751, 745. 79	.....	17, 091. 63
General expenses and taxes.....	666, 616. 96	772, 079. 21	.....	105, 462. 25
Total.....	5, 428, 694. 17	5, 734, 741. 69	.....	306, 047. 52
Net earnings.....	3, 258, 315. 82	2, 581, 783. 62	676, 532. 20	.....
Average miles operated.....	1, 322. 78	1, 275. 96	46. 82	.....
Earnings per mile.....	\$6, 567. 23	\$6, 517. 86	\$49. 37	.....
Expenses per mile.....	4, 104. 00	4, 494. 45	.....	\$390. 45
Net earnings per mile.....	2, 463. 23	2, 023. 41	439. 82	.....
Percentage of expenses to earnings.....	62. 49	68. 96	.....	6. 47

TEXAS AND PACIFIC RAILWAY COMPANY.

As required by section 13 of the act of March 3, 1871 (16 Stat., 573), the president of this company has submitted a report for the year ending June 30, 1891.

The mileage on the above date was as follows :

Eastern Division :	Miles.
Texarkana to Fort Worth, via Marshall.....	253
Transcontinental Junction to Fort Worth, via Whitesboro.....	239
Marshall to State line of Texas.....	19
	— 511
Rio Grande Division :	
Fort Worth to Sierra Blanca.....	522
Joint track Sierra Blanca to El Paso.....	93
Branch to Gordon coal mines.....	6
	— 621
Louisiana Division :	
New Orleans to Shreveport.....	327
Shreveport Junction to State line, Louisiana.....	21
Baton Rouge Junction to Port Allen.....	11
Westwego branch.....	1
Plaquemine branch.....	7
	— 367
Total.....	1, 499

The Louisiana Division was inspected by the engineer of this Bureau in April, 1891. His report will be found in Appendix No. 1.

On June 30, 1891, the equipment consisted of 191 locomotives; 42 first class, 12 second class, 11 combination, 16 excursion passenger, 30 baggage, express, and postal, 3 special and 1 pay car, a total of 115 cars in the passenger service. In the freight service there were 1,859 box, 776 flat, 555 stock, 459 coal, and 38 fruit cars, a total of 3,687 cars in the freight service. There were 193 cars in the road-repair service.

The New Orleans Pacific Railway Company was consolidated with the Texas and Pacific Railway Company June 21, 1881.

The records of the General Land Office show that to June 30, 1891, there had been patented by the Government 912,865.93 acres of land to aid in the construction of the New Orleans Pacific Railway, but the company makes no report to this office of the operations of the land department.

The following statements show the financial condition of the company June 30, 1891:

LIABILITIES.

First mortgage bonds, February 1, 1888.....	\$24,985,778.65
Second-mortgage income bonds.....	24,918,034.18
First-mortgage bonds, eastern division	3,784,000.00
Old bonds unredeemed.....	93,595.00
Texas school fund loan.....	145,638.39
Interest, scrip, income, and land bonds.....	315,012.00
Other scrip	17,177.00
Pay rolls and vouchers.....	711,554.42
Due other companies.....	68,970.07
Bills payable	236,268.71
Interest due and accrued.....	217,779.17
Estimated taxes	81,411.63
Unadjusted account—Gould-Huntington contract ...	179,651.55
Other unadjusted accounts.....	59,098.38
Total debt.....	\$55,813,969.15
Capital stock.....	38,710,900.00
Total stock and debt.....	94,524,869.15

ASSETS.

Road and equipment.....	80,473,006.86
New second-mortgage bonds in Treasury	1,763,000.00
Other bonds and scrip.....	40,494.00
Gordon coal mines.....	136,276.46
In hands of trustees to retire first-mortgage bonds	
E. D. and Texas school fund loan	3,951,000.00
Capital stock, New Orleans Pacific Railway Company.	6,712,500.00
Capital stock, California and Texas Railway Con-	
struction Company.....	686.77
Capital stock, New Orleans Union Belt Railway Com-	
pany	150.00
Capital stock and franchises, Denison and Bonham	
connection.....	22,183.80
Texas and Pacific car trust.....	131,000.00

Cash on hand	\$129,989.75	
Due from agents and foreign roads	543,516.66	
Advances to agents	5,728.55	
Unclaimed wages	16,268.11	
Bills receivable, land notes	139,738.36	
Material on hand	260,019.27	
Unadjusted accounts	108,634.18	
Total assets		\$94,434,192.77
Deficit		90,676.38

Revenue and expenditures for the year ending June 30, 1891.

REVENUE.

Earnings	\$7,235,650.06	
Equipment sold	11,300.34	
Coupons and interest	13,271.84	
Rentals	53,001.60	
Sundry amounts	115,589.77	
Bonds	2,638.00	
Total		\$7,431,451.61

EXPENDITURES.

Operating expenses and taxes	5,632,206.81	
Interest on funded debt	1,279,490.00	
Interest and discount	16,928.44	
Traffic association expenses	5,389.08	
Rentals	68,904.00	
New equipment	146,149.45	
Car trusts, series B	131,000.00	
Sundry amounts	83,464.54	
Investments	22,707.21	
Litchfield Railway Equipment Company, car trust de- bentures paid	33,452.76	
Total		7,419,692.29
Surplus		11,759.32

Comparative statement of the earnings and expenses of the Texas and Pacific Railway Company.

	Year ending June 30, 1891.	Year ending June 30, 1890.	Difference.	
			Increase.	Decrease.
EARNINGS.				
Passenger	\$1, 939, 028. 46	\$1, 757, 389. 22	\$181, 639. 24	.....
Freight.....	4, 857, 269. 22	5, 065, 557. 23	.....	\$208, 288. 01
Mail.....	209, 506. 87	197, 137. 56	12, 369. 31	.....
Express	158, 625. 52	146, 687. 05	11, 938. 47	.....
Miscellaneous	71, 219. 99	45, 921. 47	25, 298. 52	.....
Total	7, 235, 650. 06	7, 212, 692. 53	22, 957. 53	.....
EXPENSES.				
Conducting transportation	2, 119, 294. 00	2, 060, 151. 91	59, 142. 09	.....
Maintenance of way.....	1, 232, 053. 42	1, 358, 671. 59	.....	126, 618. 17
Motive power	1, 538, 850. 36	1, 633, 277. 68	.....	94, 427. 32
Maintenance of cars.....	319, 525. 80	295, 448. 80	24, 077. 00	.....
General expenses and taxes	422, 483. 23	408, 734. 82	13, 748. 41	.....
Total	5, 632, 206. 81	5, 756, 284. 80	.....	124, 077. 99
Net earnings	1, 603, 443. 25	1, 456, 407. 73	147, 025. 52	.....
Average miles operated	1, 499. 00	1, 499. 00	.....	.....
Earnings per mile	\$4, 826. 98	\$4, 811. 66	\$15. 32	.....
Expenses per mile.....	3, 757. 30	3, 840. 08	.....	\$82. 78
Net earnings per mile	1, 069. 68	971. 58	98. 10	.....
Percentage of expenses to earnings	77. 84	78. 42	.....	. 58

CONCLUSION.

Under the act of June 19, 1878, the jurisdiction of this Bureau extends over forty-nine original companies, which, by consolidation and lease, are now represented and operated by twenty-three companies and have an aggregate of about 47,500 miles of road. I take pleasure in commending the general efficiency of the employes of this Bureau, who have made accurate and comprehensive inspections of the property and accounts of these companies as required by law.

I have deemed it advisable to republish the principal acts of Congress relating to the several bonded and land-grant railways coming under the provisions of the act of June 19, 1878. They will be found in Appendix No. 2.

I have the honor to be, sir, very respectfully, your obedient servant,

H. A. TAYLOR,
Commissioner.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

APPENDIX No. 1.

REPORT OF RAILROAD ENGINEER.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE COMMISSIONER OF RAILROADS,

Washington, November 1, 1891.

SIR: I have the honor to submit the following report of the inspection of railroads coming under the supervision of this Bureau, made during the months of April, May, and June of the present year, and embracing the Union Pacific, Central Pacific, Sioux City and Pacific, Central Branch Union Pacific, Northern Pacific, St. Paul and Duluth, Chicago, St. Paul, Minneapolis and Omaha, Chicago and Northwestern, Burlington and Missouri River in Nebraska, Chicago, Burlington and Quincy, St. Joseph and Grand Island, St. Louis, Iron Mountain and Southern, St. Louis and San Francisco, Missouri, Kansas and Texas, Atchison, Topeka and Santa Fé, Atlantic and Pacific, St. Paul, Minneapolis and Manitoba, Southern Pacific of California, and the Texas and Pacific.

UNION PACIFIC RAILWAY.

The inspection of the main line from Omaha, Nebr., to Ogden, Utah, and from Cheyenne, Wyo., to Denver, Colo., was made in April, in company with the division officers, who rendered all facilities required for the examination.

The mileage operated December 31, 1890, was:

	Miles.
Union Division	1, 042. 93
Kansas Division	642. 94
Cheyenne Division	104. 06
Leavenworth Branch	31. 93
Total Union Pacific	1, 821. 86
Auxiliary lines operated and controlled	5, 776. 96
Total of the system	7, 598. 82

This shows an increase of auxiliary lines amounting to 2,418.17 miles, and an addition to main line of 0.59 at Almy Junction. The renewals of rails and ties have been sufficient to keep the main track in good condition, and also allow for extension of sidings in many places.

The bridges and buildings have been kept in good order. The extensive new shops at Cheyenne are nearly completed, and are furnished with an abundance of excellent machinery of modern design amply sufficient to do nearly every kind of railway repairs with promptness and economy.

The renewals of track have required 17,191.65 tons of steel and 2,775.45 tons of iron rails, also 686,152 cross-ties, 70 per cent of which are of oak. There are now 346.44 miles of track laid with steel under 60 pounds per yard; 1,138.63 miles with steel of 60 to 67 pounds, and 321.46 miles with 75 pounds steel, over 202 miles of the latter pattern having been laid during 1890.

The improvements that were under way at Denver have now been completed and put in use, very greatly improving the station facilities and making the passenger house amply sufficient for the large amount of business transferred at that station. Green River Station has been much improved by putting in more sidings, adding ten stalls to the engine house, building a much better office for the train dispatcher, and giving increased facilities for managing the yard business.

During the year ending June 30, 1891, the following extensions were completed:

	Miles.
La Grande to Elgin, Oregon	20.89
Wallace to Burke, Idaho	6.67
Milford to Urton, Utah	7.71
Ogden, Utah, to McCammon, Idaho	77.59
Wendover to Orin Junction, Wyo	31.41
Martinzen, Colo., to Vasquez, N. Mex	25.22
Catskill, N. Mex., to Red River	2.59
Road Junction to Berwind, Colo	2.82
Denver West Side Line, Denver, Colo	3.51
	178.41
Less length of abandoned lines	57.86
Total increase	120.55

KANSAS DIVISION.

The inspection was made in May in company with the division officers.

The mileage now reported is:

	Miles.
Kansas City, Mo., to Denver, Colo	638.91
Leavenworth to Lawrence, Kans	31.93
Leavenworth to Miltonvale, Kans	165.49
Junction City to Concordia, Kans	70.86
Lawrenceburg to Belleville, Kans	17.14
St. Joseph, Mo., to Grand Island, Nebr	251.06
Fairfield to Alma, Kans	87.20
Salina to McPherson, Kans	35.47
Salina to Oakley and Colby, Kans	225.35
Solomon to Beloit, Kans	57.04
Wyandotte and Enterprise spurs	4.03
One-half Leavenworth to Meriden, Kans., jointly, with Atchison, Topeka, and Santa Fé	23.28
Total	1,607.76

The roadbed, track, buildings, and bridges have been kept in very good condition and many substantial improvements have been made. The telegraph line is being thoroughly rebuilt, and the careful expenditure of the few past years has made this now one of the best divisions of the Union Pacific system. The track is very smooth, being fully equal to the best of the roads west of the Missouri River. The buildings that were being constructed at date of the last inspection are all completed and in use.

The following improvements have been completed during the past year, part of which were under way in the previous year: Kansas City, headquarters building, costing \$40,000; extension of sidings, \$389. Armstrong, double ash-pit, \$1,244; 92 linear feet of trestle, \$631; new sidings and extension of old tracks, \$10,707. Loring, new combination depot, 20 by 48 feet, \$1373. Topeka, 8-pocket coal chute, \$2,071; enlarging track scales, \$418; new sidings, \$500. Manhattan, stock yards rebuilt and enlarged, \$942; extending side tracks, \$363. Junction City, frame freight house removed to new location, remodeled and enlarged, \$2,022; new side tracks, \$3,660.

Salina, new coal chute of 8 pockets, \$2,182, siding, \$519. Ellsworth, stock yard rebuilt, 120 by 144 feet, \$517. Gorham, combination depot, 20 by 48 feet, \$1,416. Buffalo park, freight depot, 20 by 30 feet, and office with waiting room, 20 by 24 feet, \$1,179. Oakley, 8-pocket coal chute, \$2,162. McAllaster, combination depot, 20 by 48 feet, \$1,476. Cheyenne Wells, house removed from Wallace and rebuilt for assistant superintendent, \$2,201; office building, \$462. Deer Trail, and River Bend, combination depots 20, by 48 feet, \$2,707. Byers, moving and enlarging building for freight room and offices, \$1,273. Bennett, enlarging freight and office buildings, \$1,342.

New sidings and extensions have been made at Lawrence, Midland, St. Marys, Carneiro, Leavenworth, Sharon Springs, and Magnolia, costing \$4,892. Bridge No. 34 rebuilt and enlarged to increase the waterway, \$2,072. Rebuilding 21 trestle bridges, \$22,373; building 34.28 miles of wire fence, \$7,075; rock ballast, 4.15 miles, \$8,892; burnt clay ballast, 2.13 miles, \$4,360; putting in cinder ballast at various places on main line, \$2,283. Ties used for renewals and new sidings, mostly of oak, amounted to 130,905, costing \$63,337. Three-fourths of a mile of new 75-pound steel has been laid, costing \$1,589.

CENTRAL PACIFIC RAILROAD.

The inspection was made in April of the main line, extending from Ogden, Utah, to Sacramento, Cal., and from Oakland, via Niles, Tracy, and Lathrop, to Goshen, Cal., in company with the officers of the line, who courteously furnished all facilities required.

The total length of lines owned by this company and operated by the Southern Pacific Company is 1,360.28 miles, being the same as reported last year.

The track and roadbed were in very fair condition for the time of year. The buildings and bridges generally are well kept up. Very much work has been done in renewals and repairs of snowsheds, which the experience of the previous year shows must be maintained. Another greatly needed improvement is under way, viz, ballasting the track from Tracy and Lathrop southward with gravel obtained from the bed of San Joaquin River, near Herndon; a sufficient quantity will be put on the roadbed, so as to keep down the dust, which has been so exceedingly troublesome in the San Joaquin Valley. This work was commenced in February and was carried on vigorously during the months of March and April. By the 1st of May the spring rise flooded the pit so it was considered advisable to discontinue the work until the water went down. About 22 miles of track from Fresno northward was ballasted during that time.

Station buildings have been put up as follows: Summit and Cascade, new telegraph offices; Atwater, depot enlarged; Ager, combination freight and passenger house; Red Bluff, two new woodsheds; Shady Run, woodshed extended 100 feet; Steinman, new turntable; Cottonwood, turntable put in that was removed from Coles. New snowsheds to the extent of 25,596 linear feet have been built, and very thorough repairs made upon the other sheds. Between Wells and Montello 8,359 linear feet of snow fences have been built. There have been 51,494 linear feet of fence built at different places along the right of way.

Iron bridges have been erected at Wadsworth and Upper Cascade to replace wooden bridges that were burned. The water supply was improved by laying 3,268 feet of 3-inch pipe to replace 2-inch pipe at Cosgrove; at Holborn 356 feet of 4-inch pipe in place of 3-inch; at Truckee 862 feet of 6-inch pipe and 878 feet of 3-inch, replacing wornout pipe. The well at Battle Mountain was deepened 70 feet, making total depth 250 feet and greatly improving the supply of water.

Side tracks have been increased to the extent of five miles. In these and along the main line 429,717 new ties have been used. Upon the heavy grades of the Sacramento Division 26.64 miles of 60-pound rails have been taken up and 76-pound rails put in place. Upon other parts of the road light steel and iron rails have been replaced by 62-pound steel.

SIOUX CITY AND PACIFIC RAILROAD.

Inspection was made in May, in company with the division superintendent.

The mileage is the same as last year, 107.42 miles. The roadbed, track, buildings, and equipment are in excellent condition. There has not been any addition to the ballast, and no large renewal of ties. The passenger and freight buildings at Sioux City have been completed and make a very creditable appearance. The Missouri Valley shops are kept in good order, but no additions have been made to the machinery. The following permanent improvements have been made during the past year: At Sioux City, new brick depot for freight, 40 by 254 feet, costing \$16,400, and express building of brick, 34.5 feet square, costing \$3,083.

CENTRAL BRANCH UNION PACIFIC RAILROAD.

This road was inspected in May in company with the superintendent, and found to be in very fair condition, although it had been somewhat damaged by excessive rains.

The mileage is the same as last year, viz:

	Miles.
Atchison to Waterville, Kans., owned	100
Waterville to Lenora, Kans., leased	193
Greenleaf to Washington, Kans., leased	7
Yuma to Warwick, Kans., leased	31
Downs to Alton, Kans., leased	23
Jamestown to Burr Oak, Kans., leased	34
Total	388

Heavy rains in the spring caused considerable damage to the roadbed along the line, besides washing out a large part of the retaining wall at Atchison and somewhat damaging the station grounds, coming almost into the passenger building. The new retaining wall is being well built of heavy selected stone laid upon rock foundation and is carried up to the level of the track, being well backed from bottom to top. It will be carried far enough to fully protect the passenger yard and station from liability of similar damage in future.

The principal improvements are as follows:

New ties put into main track, costing \$12,735; rebuilding wire fences, \$587; steel rail, \$101; building new retaining wall, \$5,583; new drains, sidewalks, etc., at Atchison, \$557; washouts along the line, \$2,304; extending side tracks at Parnell, Bigelow, Vermillion, and Waterville, 1,140 feet, \$1,184; ballasting with cinders, \$158. Total, 23,209.

NORTHERN PACIFIC RAILROAD.

Inspection was made in May of the road between Duluth, Minn., and Ashland, Wis., also from St. Paul to Moorehead, Minn.

The length of main line and branches is:

	Miles.
Ashland, Wis., to Portland, Oregon, and Wallula Junction, owned	2, 137. 14
Sundry main line spurs, owned	19. 56
Superior, Wis., to Duluth, Minn., owned	7. 71
Main line	2, 161. 41
Branch lines owned	1, 103. 92
Branch lines owned jointly with other companies	26. 14
Branch lines leased	1, 049. 39
Total operated June 30, 1891	4, 348. 86

The roadbed is in a fair condition and in some places is being raised and widened. The track is tolerably smooth, the bridges and buildings kept in order. Staple Station has been made a division terminal and the necessary buildings and side tracks

put in for that purpose. Some improvements have been made between Duluth and Ashland, and the roadbed and track are in better condition than at the last inspection.

The expenditure for the principal improvements made upon the whole property during the past year seems to have been so liberal that the general condition of the property must have been decidedly bettered. The report of the general manager shows the approximate amounts to be as follows :

For new shops and machinery	\$618, 000
For additional terminal facilities at Tacoma and Seattle	485, 000
For new ferry inclines at Kalama	100, 000
For new shops, etc., at Ellensburg	60, 000
For new passenger depot at Spokane	32, 000
For new yards, side tracks, etc., along the line	250, 000

For other improvements, such as station buildings, new shop tools, strengthening culverts, bridges, etc. 560,000

There were laid in the track 354.6 miles of 66-pound steel rails and 1,598,544 new ties.

The following branch lines were completed during the year ending June 30, 1891 :

	Miles.
Great Bend to Bayne, N. Dak	5. 94
Crookston to Carthage, Minn	21. 71
Clealum to Ronald, Wash	1. 99
Palmer to Kangley, Wash	1. 53
Burnett to Pittsburg, Wash	2. 07
Lakeview to Olympia, Wash	24. 12
Centralia to Montesano, Wash	41. 63
Elma to Summit, Wash	10. 29
Sappington to Norris, Mont	20. 90
Harrison to Pony, Mont	7. 09
Boulder to Elkhorn, Mont	20. 40
Desmet to St. Regis, Mont	73. 69
Belmont to Farmington, Wash	6. 09
Almira to Coulée City, Wash	21. 04
Columbia River transfer lines	3. 04
Total	261. 53

ST. PAUL AND DULUTH RAILROAD.

The inspection of the main line was made in June, 1891. The length of the road operated by the company is :

	Miles.
Main line, St. Paul to Duluth (owned)	155. 00
Knife Falls branch, Northern Pacific Junction to Cloquet (owned)	6. 50
Grantsburg branch, Rush City to Grantsburg (owned)	17. 00
Wyoming to Taylors Falls (leased)	20. 50
Minneapolis to White Bear (leased)	13. 50
White Bear to Stillwater (leased)	12. 50
Thompson to West Superior (leased)	17. 75
Total	242. 75

There is a reduction of mileage caused by the abandonment of the Kettle River branch of 5 miles length. The main line is nearly all well ballasted with gravel, and the road bed kept in good order. Steel rails varying in weight from 56 to 70 pounds per yard are used except upon the Grantsburg branch. The rolling stock is kept in good order, especially in the passenger department. The track and bridges are well kept, and the condition of the whole property seems excellent. The new steel rails

used during the year, 931 tons, cost \$30,890. New ties put in track, 61,127, cost \$14,395. A new passenger house is being built at Duluth by the Union Depot Company, and will be a substantial building of stone, brick, and iron, intended to be fire-proof. This will probably be in use before the end of this year. This company and the Northern Pacific Railroad are the owners.

CHICAGO, ST. PAUL, MINNEAPOLIS AND OMAHA RAILWAY.

The inspection was made in June upon the lines from Elroy, Wis., to St. Paul, Minn., St. Paul to Ashland, Wis., and St. Paul to Sioux City, and to Omaha, Nebr.

The total mileage operated by this company June 30, 1891, was 1,475.52 miles.

The bridges, buildings, roadbed, and track are in very good condition. Some improvement is made by use of iron cattle-guards and heavier angle bars. The more prominent improvements are as follows: Steel rails laid upon the northern and eastern divisions, 8,900 tons; upon the Sioux City division, 1,650 tons. New ties put in track on the former division, 222,906, and 94,340 upon the latter. Iron bridges and stone arches were built to replace six small wooden bridges.

The work of changing the line between Baldwin and Woodville, which was begun last year, is still progressing. Additions were made to the new shops at Hudson, to the engine-houses at Minneapolis, St. James, and Sioux City. A new freight house was built at St. Paul, and an enlargement of the yard near the river bank, considerably increasing the number of tracks. An extension of the Neillsville branch was built to Marshfield, Wis., 23.04 miles, connecting with the Wisconsin Central Railway. The shops at Hudson, Wis., are quite extensive, are well supplied with excellent machinery, and located in a very convenient place for doing the work for a large part of the road. There are eight large new buildings well constructed and arranged in such manner that the officers of the road seem well pleased with their arrangement and capacity for doing excellent work.

CHICAGO AND NORTHWESTERN RAILWAY.

Inspection was made in June between Winona and St. Peter, Minn., and from Chicago, Ill., to Council Bluffs, Iowa.

The mileage operated by this company June 30, 1891, was 4,273 miles, an increase of nearly 23 miles over the amount reported for the previous year.

Many improvements have been made during the past year in every department of the road, all of which tend to keep up the well-deserved reputation of this company for maintaining a first-class railway. The bridges, buildings, roadbed, and tracks are in excellent condition, and the equipment remarkably good. The most important improvement, which was begun in 1890 and will be completed during this year, is the construction of the second track west from Clinton, Iowa, for a distance of nearly 40 miles. This is being built in the best manner, with grades made uniform, reduced considerably from the ruling grades of the first track, having iron bridges, masonry culverts, excellent ties, and 72-pound steel rails with improved fastenings.

The first track is also being brought to uniform grade with the new work, and its pile bridges and wooden culverts are being replaced by iron and stone structures. The new track is being thoroughly ballasted with stone and good gravel.

Pile bridges have been replaced by 893 feet of iron trusses and 1,141 feet of iron girders upon masonry foundations, and timber culverts by 5 stone box culverts and 8 stone arches of from 6 to 40 feet spans, besides vitrified and iron culvert pipes. New buildings have been erected as follows: At Clinton, elevated coal house with 60 dumps, new transfer table and 250 by 212 feet addition to stock yards; Boone, new scale and office at stock yards; Moingona, new warehouses for grain and stock scales; Belle Plaine, new freight house; Ames, new stock scale and pump house; Glidden, new freight and passenger house. New water tanks at De Witt, Tama and Loveland; new stock scales at Nevada, Ogden, Beaver, Grand Junction, and Carroll.

At Council Bluffs 28 by 110 feet addition has been made to the ice house.

Pile bridges have been rebuilt equal to 4,930 linear feet; iron pipes laid of 24 to 36 inches diameter, replacing wooden culverts, 558 linear feet; 1.47 miles new side-track laid; 3.4 miles of track ballasted; track relaid with 60 to 65 pound cut steel, 14.12 miles, in addition to 17.96 miles laid with new 72-pound steel, costing \$540,679. There has also been a liberal allowance of new ties, 1,324,994 having been used, at an expense of \$525,736.

BURLINGTON AND MISSOURI RIVER RAILROAD IN NEBRASKA.

The land-grant portion of this road, extending from Pacific Junction, Iowa, via Plattsmouth, to Kearney, Nebr., a distance of 195.47 miles, was inspected in June.

The total length of lines now operated by this company is 3,097.2 miles, an increase of 91.8 miles during the year, extensions having been made to Deadwood, S. Dak., to Merino, Wyo., and from Bellevue to South Omaha. There have been additions to side tracks and new sidings amounting to 39.56 miles.

The rolling stock, buildings, and bridges appear to be in good order; the track tolerably fair, considering the long continuance of wet weather, which keeps the roadbed soft and fills the ditches in many of the cuts. Renewals of ties are being made at many points, and considerable cinder and burnt clay has been used in ballasting.

Work has been commenced upon the new shops at Lincoln, Nebr., which are designed to take the place of those at Plattsmouth, which are too small and quite inconveniently located for the business of the road.

CHICAGO, BURLINGTON AND QUINCY RAILROAD.

The inspection was made in June of the division from Burlington, Iowa, to Pacific Junction, a distance of 276.86 miles.

The whole property is kept in excellent condition, the track being smooth and in good alignment. Much care seems to have been devoted to ballasting with gravel and burnt clay, of which latter material large quantities have been prepared for use in the present year. Within a few years many trestles have been replaced by good culverts and earth embankments, very substantial iron bridges being built over all principal streams; but during the past year no important improvements have been made upon this part of the road. The equipment is in very excellent condition. The mileage reported as operated and controlled by this company is 5,284.3 miles, which includes the lines of the Burlington and Missouri River Railroad in Nebraska.

ST. JOSEPH AND GRAND ISLAND RAILROAD.

Inspection was made in June of the main line between Grand Island, Nebr., and St. Joseph, Mo., a distance of 251.06 miles.

This road is now operated as a portion of the Kansas division of the Union Pacific Railway, under the supervision of its officers, and the mileage appears in the report of that division.

There has not been a marked improvement in any portion of the line, the track, roadbed, and buildings being in only fair condition, showing that there has been great economy in the expenditures for these departments. The rolling stock has been quite well kept up.

The principal improvements for the year are: Elwood, frame storehouse, 30 by 96 feet, costing \$480; Oneida, combination depot, 24 by 60 feet, \$1,192; Bremen, combination depot, 20 by 40 feet, \$969; Bridge No. 349, pile trestle rebuilt, 728 feet, \$4,402; Elwood, new transfer track and sidings, 3,263 feet, \$2,573; Norway, extension of switches, 720 feet, \$533; Fairbury, extending sidings 1,800 feet, \$1,081; Davenport, 292 feet of transfer track, \$292; Marysville, cut-off track extended 100 feet, \$100 stock-yard scales put in at Robinson, Bremen, Axtell, and Edgar, \$695; 15.72 miles of wire fence, \$2,654; 75,601 first-class white-oak ties used, \$39,317; real estate purchased at Fairbury, Kans., \$569.

ST. LOUIS, IRON MOUNTAIN AND SOUTHERN RAILWAY.

The inspection of the main line between St. Louis, Mo., and Texarkana, Tex., was made in April.

The mileage operated by this company is:

	Miles.
St. Louis, Mo., to Texarkana, Tex. (owned).....	490
Mineral Point to Potosi, Mo. (owned)	4
Bismarek to Belmont, Mo. (owned)	120
Allenville to Jackson, Mo. (owned)	16
Poplar Bluff to Birds Point, Mo. (owned)	71
Neelyville to Doniphan, Mo. (owned)	20
Knobel to Helena, Ark. (owned)	140
Diaz to Cushman, Ark. (owned)	40
Bald Knob, Ark. to Memphis, Tenn. (except 3 miles) (owned)	93
Little Rock to Arkansas City, Ark. (owned)	113
Trippe Junction to Warren, Ark. (owned)	49
Fort Smith to Greenwood, Ark. (owned)	18
Gurdon to Camden, Ark. (owned)	35
Argenta to Fort Smith, Ark. (leased)	165
Little Rock to Argenta, Ark. (leased)	1
Van Buren, Ark., to Coffeetown, Kans. (leased)	165
Cherokee, Ind. T., to Fort Smith, Ark. (leased)	4
Coal branches (leased).....	4
Total	1,548

The condition of the track was not so good as at the previous inspection, in consequence of a long continuance of severe rains, which kept the road much too wet to allow the usual work to be done.

The principal improvements made upon the main line during the year were as follows: De Soto, boiler shed and oil house; St. Louis, stockyards at Lesperance street; Poplar Bluff, oil house, cinder pit, sand house, and coal bin; Knobel, new track scales; Beebe and Ward, small additions to the station houses; Baring Cross, brick engine house of twenty-five stalls, 60-foot wrought-iron turntable, cinder pit, smith shop, lumber shed, and standard water tank 16 by 24 feet; at Little Rock, a new ice house. The combination spans of Baring Cross Bridge were replaced with iron. Trestle bridges of 1,176 linear feet were built, to make additional water way at several places.

Upon the branch lines the following improvements were made during the year: Knob Lick, Howe truss bridge, with trestle approaches; Belmont Branch, iron girders were put in place of Howe trusses at bridges 858 and 859, and iron trusses in place of wooden at bridges 863, 871, and 880; Doniphan Branch, a combination was put in place of Howe truss at bridge 1103, also made the same change at bridge 1010, on the Cairo Branch; Helena Branch, 139 linear feet of new trestle built; White River Branch, bridge 1515, Howe truss was replaced by combination spans and iron draw. New combination depots were erected at Cherry Valley and Dumas, Ark.; cotton platforms at Hayes and Martin; standard coal chutes at Wynne; telegraph offices at Crowley and Parkin, and 352 feet trestle bridge at Grassy Lake.

The new buildings and sidings are now in use at Baring Cross. The yard is cleaned up and the shops present a much better appearance than they have for years.

ST. LOUIS AND SAN FRANCISCO RAILWAY.

The inspection of the main line from St. Louis to Monett and the branch thence to Van Buren, Ark., was made in June.

The mileage operated June 30, 1891, was

	Miles.
St. Louis, Mo., to Seneca, Mo. (owned)	326.28
Pierce City, Mo., to Wichita, Kans. (owned)	217.40
Monett, Mo., to Paris, Tex. (owned)	303.07
Springfield, Mo., to Bolivar, Mo. (owned)	32.79
Springfield, Mo., to Chadwick, Mo. (owned)	34.86
Springfield Connecting Railway (owned).....	3.18
Oronogo, Mo., to Joplin, Mo. (owned).....	9.32
Pittsburg, Kans., to Wier City, Kans. (owned)	8.81
Girard, Kans., to Galena, Kans. (owned)	46.43
Fayetteville, Ark., to St. Paul, Ark. (owned)	33.29
Jansen, Ark., to Mansfield, Ark. (owned)	18.34
Carbon Branch (3.25) Granby Branch (1.50) (owned).....	4.75
Lt. Louis, Salem and Arkansas Railroad and branches (leased).....	54.00
Kansas City and Southwestern Railroad (leased).....	61.86
St. Louis, Kansas and Southwestern Railroad and branch (leased)	59.35
Kansas Midland Railway.....	107.20
Total.....	1,326.93
Atlantic and Pacific Railway (owned jointly)	918.86
Wichita and Western Railway (owned jointly).....	124.64
	1,043.50
One-half for St. Louis and San Francisco Railway.....	521.75
Total length of the system.....	1,848.68

The track was rather rough, roadbed and ditches not in quite as good condition as at last inspection, rails and ties seemed good, and there appeared to be enough ties distributed on the road to make the needed renewals.

The buildings and bridges are in good condition generally, with the exception of a few open culverts, where the walls are temporarily supported by timber. The rolling stock appears to be in quite good condition, but in other departments there seems to be very close economy in managing the expenditures, so that very little improvement has been made. The following sums have been expended for improvements during the year ending June 30, 1891:

For new sidings	\$48,103.32
New water stations	7,931.37
New ballast	25,315.61
New machinery at Springfield shops	1,373.88
Cold-storage room in St. Louis freight depot.....	1,291.98
Car-repair shop at St. Louis	189.79
Freight shed at Springfield.....	1,598.87
Lumber shed at Springfield	360.08
New telegraph wire, St. Louis to Springfield, Mo	487.18
	86,652.08

MISSOURI, KANSAS AND TEXAS RAILWAY.

Inspection was made in May of the portion between Parsons, Kans., and Junction City.

The mileage of the system is the same as last year, 1,828.46 miles.

The bridges and buildings are in good order; the roadbed is in fair condition. The track, which is now laid with steel throughout, is not in good surface nor so well supplied with sound ties as it should be. The new combination house at Junction City is quite good, and the station ground is kept clean. The shops at Parsons are well supplied with tools, and the yard is kept in good order. The rolling stock is apparently in better condition than at the date of last inspection, and some improvement is noticeable in other departments.

The track between Junction City and south line of Kansas is laid with steel rails of 52 and 56 pounds per yard; only a small portion is ballasted, viz, 22.68 miles. New steel rails were laid this year amounting to 948 tons, costing \$16,065; also 11,587 ties of oak, at an expense of \$4,877. There are now 113 miles of barbed-wire fencing. Wooden bridges to the extent of 555.3 linear feet have been replaced with iron, and renewals made of combination girder and trestles to the extent of 2,679 linear feet.

ATCHISON, TOPEKA AND SANTA FÉ RAILROAD.

The inspection of the main line of this road was made in May, between Coolidge, Kans., and Kansas City, Mo., a distance of 485 miles.

The mileage of the system, not including the Atlantic and Pacific, is as follows:

	Miles.
Lines owned and leased.....	4,582.19
Lines and branches controlled.....	1,945.79
One-half of roads operated jointly with other companies.....	118.68
Total.....	6,646.66

The only noticeable improvement upon the main line was in laying 49 miles of 66-pound steel rails, replacing 19 miles of 52-pound, 28 miles of 56-pound, and 2 miles of 61 and 67 pound steel rails. At Argentine, 6.4 miles additional sidings were laid, an elevator 82 by 126 feet was built of 750,000 bushels capacity, and 15 stalls added to the round house. Between Morris and Holliday 2.52 miles of second track was laid.

The track, bridges, roadbed and equipment are in excellent condition throughout the line, which might be expected of a company whose standard for railway work has always been high.

ATLANTIC AND PACIFIC RAILROAD.

The examination was made in May of the line between Barstow, Cal., and Albuquerque, N. Mex.

The milage operated by this company June 30, 1891, was:

	Miles.
Western division, Albuquerque, N. Mex., to Mojave, Cal	818.3
Branch to Gallup coal mines	3.3
Total.....	821.6

The Central Division is now built from Seneca, Mo., to Sapulpa, Ind. T., 112.05 miles but is operated by the St. Louis and San Francisco Railway Company and the mileage credited to that company.

The track has not been very well kept up, except in a few places, particularly upon steep grades where heavy rails, good ties, and sufficient ballast are used. There has been a little improvement in the station buildings, particularly at Flagstaff, where a handsome passenger house has been built of excellent red sandstone. There has also been quite a good addition made to the ballast. The following list shows the

principal improvements made: 10.75 miles of new side tracks laid; 50 miles of new 66-pound steel laid to replace the lighter rails; 20 miles of track ballasted with cinder; 1.5 miles of road protected by riprap; 30 miles of new wire fence. At Winslow a new library and reading room has been built; Walnut, a coal chute, telegraph office, and pump-house; Williams, stock yards, scales, engine house, sand house, oil house, and engineer's bunk house; Peach Springs, eating house and two cottages in connection with it; Mellen, a depot and pump house; Needles, new ice house; Bagdad, new depot and ice house.

By the construction of the new iron and steel bridge over the Colorado River, about 8 miles south from the former crossing, there has been secured a safe crossing of the river and security from damage by floods so common at the former location.

The new line connecting with the present bridge is about 13 miles long, being about 3 miles longer than the old location, and being placed on higher ground will be free from damage by flood water. The bridge is built on the cantilever principle, of iron and steel; the main span is 660 feet between centers of piers, with end spans of 165 feet each, making the length of the main structure 990 feet. The base of the rail is 53.5 feet above extreme high water, giving ample clearance for the small steamers now in use upon the Colorado River, and being above any danger from drift-wood. The work upon the first pier was commenced November 21, 18-9, and all the masonry was finished March, 1890. The erection of the superstructure was begun February 1 and completed May 10, 1891, when regular trains began crossing, and within 24 hours the old line connection was cut off by encroachment of the river near Powell Station, in spite of energetic efforts of the road department to hold it, thus early vindicating the good judgment of the company in undertaking this work. The whole cost of the bridge and new line is about \$700,000.

ST. PAUL, MINNEAPOLIS AND MANITOBA RAILWAY.

Inspection was made in May of the division between St. Paul and Fargo, via St. Cloud, a distance of 242 miles.

The Great Northern Railway Company has leased and now operates all the lines of this company. The mileage of the system is now 3,323 miles. Extensions are being made through Montana, Idaho, and Washington, to reach the Puget Sound country and the Pacific coast trade.

The station buildings and bridges are in very good order, the roadbed well cared for, and the track, partially ballasted, is in good condition. There is a large engine-house of stone at Moorhead; brick and engine house at Barnesville, with large frame building for passenger, hotel, and division offices. At Fergus Falls there is a well-arranged, artistic looking passenger building. The buildings at other stations seem to be ample, and the equipment in excellent condition. The general manager states that no special improvements have been made on this line during the past year, as the track was relaid with 75-pound steel rails, and grades reduced to a maximum of 32 feet per mile, and improvements then made were of so substantial a character that there was no occasion for any work of the kind this year.

SOUTHERN PACIFIC RAILROAD OF CALIFORNIA.

The inspection of this road was made in May in company with the division officers. The mileage reported to June 30, 1891, was 1,385.67 miles.

New lines were opened for traffic since last report as follows:

	Miles.
Porterville to Pozo, December 24, 1890.....	34.96
Oakdale to Merced, February 2, 1891.....	40.60
San Ramon to Avon, June 7, 1891	19.70
Ontario to Chino, February, 1891.....	5.70
Total	100.96

New stations were established as follows: Albrae, on South Pacific Coast Railway, between Mowry and Alviso; Razain, on the Fresno Division between Fresno and Butler; Spring Valley on the Coast Division, between Ocean View and Colma; Neroly on the San Pablo Division, between Brentwood and Byron; Bloomington on the Yuma Division, between San Sevain and Colton; Bicknell on Yuma Division, between Brookside and El Casco.

New buildings have been put up as follows: At Santa Barbara, Chopola street, a small passenger house has been built; Lemoore, passenger house enlarged; Camulos, small freight shed built; San Sevain, new passenger depot; Ogilby a small freight house; Brookhurst, new freight house; Los Angeles, paint shop fitted up from building moved from Deming, also new cattle corral, water tank and windmill; Texas Hill, small freight house; Yuma, new ice house and depot to replace agent's office, freight house, ice house, and roadmasters storehouse that were washed away by the floods of February, 1891, and new shops for car repairers; Aztec, a small freight house; Adonde, telegraph office enlarged. For protection against troublesome washouts, 2,898 linear feet of new trestles have been built.

In connection with the change of line in the Soledad Cañon, which was completed last year, a new pipe line has been laid, supplying water to the tank at Ravenna, and the old pipe line formerly supplying Southside station was taken up. New pipe line was also laid to furnish a better and more permanent supply of water at Lang Station. Pipe was also laid to distribute water to the buildings and corrals at Tulara, Santa Monica, Saugus, Indio, Beaumont, Colton, Seven Palms, Willcox, and Los Angeles.

The very serious washouts on the Ventura Division, between Saugus and Santa Paula, rendered it advisable to relocate a large part of the line between those stations. The new line built and now in operation is 16,542 feet in length. The old line for 16,502 feet has been abandoned. There has been new fencing built equaling 24 miles. Side and spur tracks have been laid to the extent of 21.66 miles. The new ties used for ordinary repairs amounted to 269,873. Upon the Los Angeles Division 5.87 miles of 76-pound steel has been laid to replace 60-pound steel rails. Upon other parts of the road 51.39 miles of 62-pound steel has been used to replace lighter steel and iron rails.

The total mileage of roads now operated by the Southern Pacific Company is as follows:

	Miles.
Southern Pacific Railroad of California	1, 385. 67
Southern Pacific Railroad of Arizona	384. 74
Southern Pacific Railroad of New Mexico	171. 06
South Pacific Coast Railway	104. 00
Northern Railway	390. 38
Northern California Railway	53. 60
Central Pacific Railroad	1, 360. 28
Oregon and California Railroad	554. 60
Oregonian Railroad, west side	57. 50
Portland and Willamette Valley Railway	28. 50
California Pacific Railroad	115. 44
Galveston, Harrisburg and San Antonio Railway	936. 90
Texas and New Orleans Railraod	207. 73
Louisiana Western Railroad	112. 03
Morgan's Louisiana and Texas Railroad	283. 50
Gulf, Western Texas and Pacific Railway	111. 20
New York, Texas and Mexican Railway ..	91. 00
Total	6, 348. 13

TEXAS AND PACIFIC RAILWAY.

Inspection of the New Orleans division was made in April.

The mileage operated is the same as last year.

	Miles.
New Orleans to Shreveport, La	327
Baton Rouge Junction to West Baton Rouge, La.....	8
Westwego Branch, La.....	1
Port Allen Extension, La	3
Plaquemine Branch, La.....	7
Total of the division	346

A portion of the track being submerged south from Waggaman, in consequence of break in Mississippi levee near Amesville, a temporary landing place was made near Waggaman Station and connection kept up with New Orleans by boat, the company thus losing the use of about 10 miles of road during the continuance of the overflow.

The track and roadbed have been kept in tolerably good condition, considering the damage occasioned by rain and flood upon the light soil of which the road is built.

The expense of repairing damage by the overflow was: For bridging the crevasse at Amesville, \$5,823; repairs to levees, \$3,548; raising track, \$1,047; temporary incline at Sellers, \$2,518; temporary incline at Waggaman, \$3,770; making total for that account, \$16,706. The amounts charged for betterments during the past year are: For new fencing, \$6,668; ditching and embanking, \$1,416; freight elevator at Alexandria, \$5,983; constructing new and enlarging old bridges, \$10,439; fenders and floating driver bridge at Melville, \$2,893; fire pump at Melville bridge, \$825; artesian well at Shreveport Junction, \$1,463; new side tracks and extensions, with ballast, \$1,407; water tanks and pump houses, \$3,153; coal chutes and platform at Oxford, \$754; station buildings and platforms, \$2,664; making a total of \$37,665.

GENERAL REMARKS.

The land grant railways seem to have been kept generally in as fair condition as in the previous year, but in consequence of decreased net receipts the substantial improvements that were begun upon some of the lines have been stopped or materially reduced, for generally a reduction of income is rapidly followed by such a strict economy in expenditure that the permanent interest of the companies is sometimes injured by reducing too much the allowance for maintaining roadbed and track. Many of these companies are steadily substituting durable culverts of iron and stone, filling trestle bridges by earthwork, and iron and steel trusses in place of wooden bridges, while the use of heavier rails seems to steadily increase with the heavy rolling stock now so largely in use.

The length of main track of the railways in the United States reported to December 31, 1890, was 166,817 miles, showing an increase for the year of more than 5,400 miles.

I take pleasure in acknowledging the very courteous treatment shown me by the officers of these railways.

Respectfully submitted.

THOS. HASSARD,
Railroad Engineer.

Hon. H. A. TAYLOR,
Commissioner of Railroads.

APPENDIX No. 2.

LAWS OF THE UNITED STATES AFFECTING PACIFIC RAILROADS.

ACT OF JULY 1, 1862.

AN ACT to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes.

12 Stat. 489.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Walter S. Burgess, William P. Blodgett, Benjamin H. Cheever, Charles Fosdick Fletcher, of Rhode Island; * * * together with five commissioners to be appointed by the Secretary of the Interior, and all persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic in deed and in law, by the name, style, and title of "The Union Pacific Railroad Company;" and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph, with the appurtenances, from a point on the one hundredth meridian of longitude west from Greenwich, between the south margin of the Valley of the Republican River and the north margin of the Valley of the Platte River, in the Territory of Nebraska, to the western boundary of Nevada Territory, upon the route and terms hereinafter provided, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one hundred thousand shares of one thousand dollars each, which shall be subscribed for and held in not more than two hundred shares by any one person, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named, together with those to be appointed by the Secretary of the Interior, are hereby constituted and appointed commissioners, and such body shall be called the Board of Commissioners of the Union Pacific Railroad and Telegraph Company, and twenty-five shall constitute a quorum for the transaction of business. The first meeting of said Board shall be held at Chicago at such time as the commissioners from Illinois herein named shall appoint, not more than three nor less than one month after the passage of this act, notice of which shall be given by them to the other commissioners by depositing a call thereof in the post-office at Chicago, post-paid, to their address at least forty days before said meeting, and also by publishing said notice in one daily newspaper in each of the cities of Chicago and Saint Louis. Said Board shall organize by the choice from its number of a president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. It shall be the duty of said Board of Commissioners to open books, or cause books to be opened, at such times and in such principal cities in the United States as they or a quorum of them shall determine, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to

Name and title.

Location, &c.

Amt. and number of shares of stock changed from \$1,000 to \$100. Sec. 1. act 1864.

Comm'rs, how appointed and to hold meeting.

Treasurer to give bond, &c.

Books to be kept open. See sec. 2, 1864.

Comm'r to call meeting of stockholders.

To elect directors. See sec. 13, act of 1864.

Books and property to be delivered to directors.

Two directors to be appointed by the President of the U. S.

Altered to five. Sec. 13, act of 1864.

Directors shall each be owners of five shares of stock changed to fifty. Sec. 1, 1864.

Company make by-laws.

Directors to appoint agents, &c.

Directors to require payment of subscriptions. Sec. 2, act of 1864.

Officers to hold for three years altered by sec. 13, 1864.

Right of way granted.

See sec. 3, 1864.

U. S. to extinguish Indian titles. Sec. 18, 1864.

receipt therefor. So soon as two thousand shares shall be in good faith subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said Board of Commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened at least thirty days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by proxy, shall then and there elect by ballot not less than thirteen directors for said corporation; and in such election each share of said capital shall entitle the owner thereof to one vote. The president and secretary of the Board of Commissioners shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioner, treasurer, and secretary shall then deliver over to said directors all the properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. At the time of the first and each triennial election of directors by the stockholders two additional directors shall be appointed by the President of the United States, who shall act with the body of directors, and to be denominated directors on the part of the Government; any vacancy happening in the Government directors at any time may be filled by the President of the United States. The directors to be appointed by the President shall not be stockholders in the Union Pacific Railroad Company. The directors so chosen shall, as soon as may be after their election, elect from their own number a president and vice-president, and shall also elect a treasurer and secretary. No person shall be a director in said company unless he shall be a bona fide owner of at least five shares of stock in the said company, except the two directors to be appointed by the President as aforesaid. Said company, at any regular meeting of the stockholders called for that purpose shall have power to make by-laws, rules, and regulations as they shall deem needful and proper, touching the disposition of the stock, property, estate, and effects of the company, not inconsistent herewith, the transfer of shares, the term of office, duties and conduct of their officers and servants, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the objects of this act, and to do all acts and things touching the location and construction of said road and telegraph. Said directors may require payments of subscription to the capital stock, after due notice, at such times and in such proportions as they shall deem necessary to complete the railroad and telegraph within the time in this act prescribed. Said president, vice-president, and directors shall hold their office for three years, and until their successors are duly elected and qualified, or for such less time as the by-laws of the corporation may prescribe; and a majority of said directors shall constitute a quorum for the transaction of business. The secretary and treasurer shall give such bonds, with such security, as the said board shall from time to time require, and shall hold their office at the will and pleasure of the directors. Annual meetings of the stockholders of the said corporation, for the choice of officers (when they are to be chosen) and for the transaction of annual business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

SEC. 2. And be it further enacted, That the right of way through the public lands be, and the same is hereby, granted to said company for the construction of said railroad and telegraph line; and the right, power, and authority is hereby given to said company to take from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof; said right of way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass over the public lands, including all necessary grounds for stations, buildings, workshops, and depots, machine shops, switches, side tracks, turntables, and water stations. The United States shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act and required for the said right of way and grants hereinafter made.

SEC. 3. *And be it further enacted*, That there be, and is hereby, granted to the said company, for the purpose of aiding in the construction of said railroad and telegraph line, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores thereon, every alternate section of public land, designated by odd numbers, to the amount of *five* alternate sections per mile on each side of said railroad, on the line thereof, and within the limits of *ten* miles on each side of said road, not sold, reserved, or otherwise disposed of by the United States, and to which a preëmption or homestead claim may not have been attached, at the time the line of said road is definitely fixed: *Provided*, That all *mineral lands* shall be excepted from the operation of this act; but where the same shall contain timber, the timber thereon is hereby granted to said company. And all such lands so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and preëmption, like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company.

Land grants—
alternate sections.

Changed to TEN
by sec. 4, 1864.
Changed to
TWENTY. Sec. 4,
1864.

Minerals and
timber. Sec. 4,
1864.

SEC. 4. *And be it further enacted*, That whenever said company shall have completed forty consecutive miles of any portion of said railroad and telegraph line, ready for the service contemplated by this act, and supplied with all necessary drains, culverts, viaducts, crossings, sidings, bridges, turnouts, watering places, depots, equipment furniture, and all other appurtenances of a first-class railroad, the rails and all the other iron used in the construction and equipment of said road to be American manufacture of the best quality, the President of the United States shall appoint three commissioners to examine the same and report to him in relation thereto; and if it shall appear to him that forty consecutive miles of said railroad and telegraph line have been completed and equipped in all respects as required by this act, then, upon certificate of said commissioners to that effect, patents shall issue conveying the right and title to said lands to said company, on each side of the road as far as the same is completed, to the amount aforesaid; and patents shall in like manner issue as each forty miles of said railroad and telegraph line are completed, upon certificate of said commissioners. Any vacancies occurring in said board of commissioners by death, resignation, or otherwise, shall be filled by the President of the United States: *Provided, however*, That no such commissioners shall be appointed by the President of the United States unless there shall be presented to him a statement, verified on oath by the president of said company, that such forty miles have been completed, in the manner required by this act, and setting forth with certainty the points where such forty miles begin and where the same end; which oath shall be taken before a judge of a court of record.

On completion
of forty miles
changed to
TWENTY by sec.
6, 1864. U. S.
commissioners to
examine.

Patents of land
to issue on com-
pletion of 40
miles changed to
20. Sec. 6, 1864.

Vacancies in
comm'rs. See
sec. 6, act of 1864.

SEC. 5. *And be it further enacted*, That for the purposes herein mentioned the Secretary of the Treasury shall, upon the certificate in writing of said commissioners of the completion and equipment of forty consecutive miles of said railroad and telegraph, in accordance with the provisions of this act, issue to said company bonds of the United States of one thousand dollars each, payable in thirty years after date, bearing six per centum per annum interest (said interest payable semi-annually), which interest may be paid in United States treasury notes or any other money or currency which the United States have or shall declare lawful money and a legal tender, to the amount of sixteen of said bonds per mile for such section of forty miles; and to secure the repayment to the United States, as hereinafter provided, of the amount of said bonds so issued and delivered to said company, together with all interest thereon which shall have been paid by the United States, the issue of said bonds and delivery to the company shall *ipso facto* constitute a first mortgage on the whole line of the railroad and telegraph, together with the rolling stock, fixtures and property of every kind and description, and in consideration of which said bonds may be issued; and on the refusal or failure of said company to redeem said bonds, or any part of them, when required so to do by the Secretary of the Treasury, in accordance with the provisions of this act, the said road, with all the rights, functions, immunities, and appurtenances thereunto belonging, and also all lands granted to the said company by the United States, which, at the time of said default, shall remain in the ownership of the said company, may be taken possession of by the Secretary of the Treasury, for the use and benefit of the United

Government
bonds. See secs.
8 and 10, act 1864.
Now 20 miles.
Sec. 10, 1864.

See sec. 11 of
this act, for 32,-
000 and \$48,000
per mile.

Lien of U. S.
bonds made sub-
ordinate. See
sec. 10, act of
1864.

See sec. 10, act
1864.

States: *Provided*, This section shall not apply to that part of any road now constructed.

Modified. See SEC. 6. *And be it further enacted*, That the grants aforesaid are made upon condition that said company shall pay said bonds at maturity, and shall keep said railroad and telegraph line in repair and use, and shall at all times transmit dispatches over said telegraph line, and transport mails, troops, and munitions of war, supplies, and public stores upon said railroad for the Government, whenever required to do so by any department thereof, and that the Government shall at all times have the preference in the use of the same for all the purposes aforesaid, (at fair and reasonable rates of compensation, not to exceed the amounts paid by private parties for the same kind of service;) and all compensation for services rendered for the Government shall be applied to the payment of said bonds and interest until the whole amount is fully paid. Said company may also pay the United States, wholly or in part, in the same or other bonds, treasury notes, or other evidences of debt against the United States, to be allowed at par; and after said road is completed, until said bonds and interest are paid, at least five per centum of the net earnings of said road shall also be annually applied to the payment hereof.

Bonds, when and how paid.

Fair and reasonable rates of compensation.

Government transportation — half to be paid in cash. See sec. 5, act of 1864.

Five per cent. net earnings.

Assent of company to be filed, &c.

Time of completion extended. See sec. 5, 1864.

See sec. 4, act 1864. Map, &c., designating route to be filed, &c.

Lands designated, &c.

From 100th meridian to Nevada.

See sec. 10 of this act.

Kansas Co. to construct road, &c.

SEC. 7. *And be it further enacted*, That said company shall file their assent to this act, under the seal of said company, in the Department of the Interior, within one year after the passage of this act, and shall complete said railroad and telegraph from the point of beginning as herein provided, to the western boundary of Nevada territory before the first day of July, one thousand eight hundred and seventy-four: *Provided*, That within two years after the passage of this act said company shall designate the general route of said road, as near as may be, and shall file a map of the same in the Department of the Interior, whereupon the Secretary of the Interior shall cause the lands within fifteen miles of said designated route or routes to be withdrawn from pre-emption, private entry, and sale; and when any portion of said route shall be finally located, the Secretary of the Interior shall cause the said lands hereinbefore granted to be surveyed and set off as fast as may be necessary for the purposes herein named: *Provided*, That in fixing the point of connection of the main trunk with the eastern connections, it shall be fixed at the most practicable point for the construction of the Iowa and Missouri branches, as hereinafter provided.

SEC. 8. *And be it further enacted*, That the line of said railroad and telegraph shall commence at a point on the one hundredth meridian of longitude west from Greenwich, between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the territory of Nebraska, at a point to be fixed by the President of the United States, after actual surveys; thence running westerly upon the most direct, central, and practicable route, through the territories of the United States, to the western boundary of the territory of Nevada, there to meet and connect with the line of the Central Pacific Railroad Company of California.

SEC. 9. *And be it further enacted*, That the Leavenworth, Pawnee and Western Railroad Company of Kansas are hereby authorized to construct a railroad and telegraph line, from the Missouri River, at the mouth of the Kansas River, on the south side thereof, so as to connect with the Pacific Railroad of Missouri, the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, as herein provided, upon the same terms and conditions in all respects as are provided in this act for the construction of the railroad and telegraph line first mentioned, and to meet and connect with the same at the meridian of longitude aforesaid; and in case the general route or line of road from the Missouri River to the Rocky Mountains should be so located as to require a departure northwardly from the proposed line of said Kansas Railroad before it reaches the meridian of longitude aforesaid, the location of said Kansas road shall be made so as to conform thereto; and said railroad through Kansas shall be so located between the mouth of the Kansas River, as aforesaid, and the aforesaid point, on the one hundredth meridian of longitude, that the several railroads from Missouri and Iowa, herein authorized to connect with the same, can make connection within the limits prescribed in this act, provided the same can be done without deviating from the general direction of the whole line to the Pacific coast. The route in Kansas, west of the meridian of Fort Riley, to the aforesaid point, on the one hundredth meridian of

longitude, to be subject to the approval of the President of the United States, and to be determined by him on actual survey. And said Kansas company may proceed to build said railroad to the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, in the territory of Nebraska. The Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, are hereby authorized to construct a railroad and telegraph line from the Pacific coast, at or near San Francisco, or the navigable waters of the Sacramento River to the eastern boundary of California, upon the same terms and conditions, in all respects, as are contained in this act for the construction of said railroad and telegraph line first mentioned, and to meet and connect with the first-mentioned railroad and telegraph line on the eastern boundary of California. Each of said companies shall file their acceptance of the conditions of this act in the Department of the Interior within six months after the passage of this act.

SEC. 10. *And be it further enacted*, That the said company chartered by the State of Kansas shall complete one hundred miles of their said road, commencing at the mouth of the Kansas River aforesaid, within two years after filing their assent to the conditions of this act, as herein provided, and one hundred miles per year thereafter until the whole is completed; and the said Central Pacific Railroad Company of California shall complete fifty miles of their said road within two years after filing their assent to the provisions of this act, as herein provided, and fifty miles per year thereafter until the whole is completed; and after completing their roads respectively, said companies, or either of them, may unite upon equal terms with the first-named company in constructing so much of said railroad and telegraph line and branch railroads and telegraph lines in this act hereinafter mentioned, through the territories from the State of California to the Missouri River, as shall then remain to be constructed, on the same terms and conditions as provided in this act in relation to the said Union Pacific Railroad Company. And the Hannibal and Saint Joseph Railroad, the Pacific Railroad Company of Missouri, and the first-named company, or either of them, on filing their assent to this act, as aforesaid, may unite upon equal terms, under this act, with the said Kansas company, in constructing said railroad and telegraph, to said meridian of longitude, with the consent of the said State of Kansas; and in case said first-named company shall complete their line to the eastern boundary of California before it is completed across said State by the Central Pacific Railroad Company of California, said first-named company is hereby authorized to continue in constructing the same through California, with the consent of said State, upon the terms mentioned in this act, until said roads shall meet and connect, and the whole line of said railroad and telegraph is completed; and the Central Pacific Railroad Company of California, after completing its road across said State, is authorized to continue the construction of said railroad and telegraph through the Territories of the United States* to the Missouri River, including the branch roads specified in this act, upon the routes hereinbefore and hereinafter indicated, on the terms and conditions provided in this act in relation to the said Union Pacific Railway Company, until said roads shall meet and connect, and the whole line of said railroad and branches and telegraph is completed.

SEC. 11. *And be it further enacted*, That for three hundred miles of said road most mountainous and difficult of construction, to wit: one hundred and fifty miles westwardly from the eastern base of the Rocky Mountains, and one hundred and fifty miles eastwardly from the western base of the Sierra Nevada Mountains, said points to be fixed by the President of the United States, the bonds to be issued to aid in the construction thereof shall be treble the number per mile hereinbefore provided, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed; and between the sections last named of one hundred and fifty miles each, the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon

Central Pacific R. R. Co., of California, authorized to construct road on same terms and conditions.

Time of doing work, &c.

Changed to 25 miles. See sec. 5, act 1864.

Companies may unite in building on equal terms. Sec. 16, 1864, also sec. 16 of this act.

Central Pacific R. R. Co. may continue, &c., to meet other road.

Authority confirmed. See sec. 16, act of 1864, last clause. Also sec. 2, 1866.

Subsidy bonds treble over the Rocky and Sierra Nevada Mountains.

Modified. Sec. 8, 1864.

Subsidy bonds double between the mountains.

* See section 6, act of July 2, 1864. The words "and States intervening" inserted.

the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed: *Provided*, That no more than fifty thousand of said bonds shall be issued under this act to aid in constructing the main line of said railroad and telegraph.

Location at
State lines and
100 meridian.

Track to be of
uniform width,
&c.

To be used as
continuous line,
&c.

H. & St. J.
road may be ex-
tended etc.

Iowa road from
western bound-
ary of Iowa.

SEC. 12. *And be it further enacted*, That whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies meeting or uniting there shall agree upon its location at that point, with reference to the most direct and practicable through route, and in case of difference between them as to said location the President of the United States shall determine the said location; the companies named in each State and Territory to locate the road across the same between the points so agreed upon, except as herein provided. The track upon the entire line of railroad and branches shall be of uniform width, to be determined by the President of the United States, so that, when completed, cars can be run from the Missouri River to the Pacific Coast; the grades and curves shall not exceed the maximum grades and curves of the Baltimore and Ohio Railroad; the whole line of said railroad and branches and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and Government are concerned, as one connected, continuous line; and the companies herein named in Missouri, Kansas, and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber, and all materials required for constructing and furnishing said first-mentioned line between the aforesaid point, on the one hundredth meridian of longitude and western boundary of Nevada territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act.

SEC. 13. *And be it further enacted*, That the Hannibal and Saint Joseph Railroad Company of Missouri may extend its roads from Saint Joseph via Atchison, to connect and unite with the road through Kansas, upon filing its assent to the provisions of this act, upon the same terms and conditions, in all respects, for one hundred miles in length next to the Missouri River, as are provided in this act for the construction of the railroad and telegraph line first mentioned, and may for this purpose use any railroad charter which has been or may be granted by the legislature of Kansas: *Provided*, That if actual survey shall render it desirable, the said company may construct their road, with the consent of the Kansas legislature, on the most direct and practicable route west from Saint Joseph, Missouri, so as to connect and unite with the road leading from the western boundary of Iowa at any point east of the one hundredth meridian of west longitude, or with the main trunk road at said point; but in no event shall lands or bonds be given to said company, as herein directed, to aid in the construction of their said road for a greater distance than one hundred miles. And the Leavenworth, Pawnee, and Western Railroad Company of Kansas may construct their road from Leavenworth to unite with the road through Kansas.

SEC. 14. *And be it further enacted*, That the said Union Pacific Railroad Company is hereby authorized and required to construct a single line of railroad and telegraph from a point on the western boundary of the State of Iowa, to be fixed by the President of the United States, upon the most direct and practicable route, to be subject to his approval, so as to form a connection with the lines of said company at some point on the one hundredth meridian of longitude aforesaid, from the point of commencement on the western boundary of the State of Iowa, upon the same terms and conditions, in all respects, as are contained in this act for the construction of the said railroad and telegraph first mentioned; and the said Union Pacific Railroad Company shall complete one hundred miles of the road and telegraph in this section provided for, in two years after filing their assent to the conditions of this act, as by the terms of this act required, and at the rate of one hundred miles per year thereafter, until the whole is completed: *Provided*, That a failure upon the part of said company to make said connection in the time aforesaid, and to perform the obligations imposed on said company by this section and to operate said road in the same manner as the main line shall be operated, shall forfeit to the Government of the United States all the rights, privileges, and franchises granted to and conferred upon said company by this act. And

whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City, then the said Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with, the branch railroad and telegraph in this section hereinbefore mentioned, or with the said Union Pacific Railroad, said point of junction to be fixed by the President of the United States, not further west than the one hundredth meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad as aforesaid, and to complete the same at the rate of one hundred miles per year; and should said company fail to comply with the requirements or this act in relation to the said Sioux City railroad and telegraph, the said company shall suffer the same forfeitures prescribed in relation to the Iowa branch railroad and telegraph hereinbefore mentioned.

U. P. R. R. Co.
required to construct Sioux City road. Sec. 17, act of 1864.

SEC. 15. *And be it further enacted*, That any other railroad company now incorporated, or hereafter to be incorporated, shall have the right to connect their road with the road and branches provided for by this act, at such places and upon such just and equitable terms as the President of the United States may prescribe. Wherever the word company is used in this act it shall be construed to embrace the words their associates, successors, and assigns the same as if the words had been properly added thereto.

Other companies may connect, &c.

Word company explained.

SEC. 16. *And be it further enacted*, That at any time after the passage of this act all of the railroad companies named herein, and assenting hereto, or any two or more of them, are authorized to form themselves into one consolidated company; notice of such consolidation, in writing, shall be filed in the Department of the Interior, and such consolidated company shall thereafter proceed to construct said railroad and branches and telegraph line upon the terms and conditions provided in this act.

Companies authorized to consolidate. See sec. 16, act of 1864. Also sec. 10 of this act.

SEC. 17. *And be it further enacted*, That in case said company or companies shall fail to comply with the terms and conditions of this act, by not completing said road and telegraph and branches within a reasonable time, or by not keeping the same in repair and use, but shall permit the same, for an unreasonable time, to remain unfinished, or out of repair and unfit for use, Congress may pass any act to insure the speedy completion of said road and branches, or put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the use of the United States, to repay all such expenditures caused by the default and neglect of such company or companies: *Provided*, That if said roads are not completed, so as to form a continuous line of railroad, ready for use, from the Missouri River to the navigable waters of the Sacramento River, in California, by the first day of July, eighteen hundred and seventy-six, the whole of all of said railroads before mentioned and to be constructed under the provisions of this act, together with all their furniture, fixtures, rolling stock, machine shops, lands, tenements, and hereditaments, and property of every kind and character, shall be forfeited to and be taken possession of by the United States: *Provided*, That of the bonds of the United States in this act provided to be delivered for any and all parts of the roads to be constructed east of the one hundredth meridian of west longitude from Greenwich, and for any part of the road west of the west foot of the Sierra Nevada Mountain [s], there shall be reserved of each part and instalment, twenty-five per centum, to be and remain in the United States Treasury, undelivered, until said road and all parts thereof provided for in this act are entirely completed; and of all the bonds provided to be delivered for the said road, between the two points aforesaid, there shall be reserved out of each instalment fifteen per centum, to be and remain in the Treasury until the whole of the road provided for in this act is fully completed; and if the said road or any part thereof shall fail of completion at the time limited therefor in this act, then and in that case the said part of said bonds so reserved shall be forfeited to the United States.

Congress may compel speedy completion of road.

Main lines to be finished in 1876. See sec. 5 and 7, act of 1864.

Repealed. See sec. 7, act of 1864.

SEC. 18. *And be it further enacted*, That whenever it appears that the net earning of the entire road and telegraph, including the amount allowed for services rendered for the United States, after deducting all expenditures, including repairs, and the furnishing, running, and managing of said road, shall exceed ten per centum upon its cost, exclusive

Under certain Circumstances Congress may reduce rates of fare.

of the five per centum to be paid to the United States, Congress may reduce the rates of fare thereon, if unreasonable in amount, and may fix and establish the same by law. And the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the Government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other purposes, Congress, may at any time, having due regard for the rights of said companies named herein, add to, alter, amend, or repeal this act.

May arrange with telegraph companies now existing.

SEC. 19. *And be it further enacted*, That the several railroad companies herein named are authorized to enter into an arrangement with the Pacific Telegraph Company, the Overland Telegraph Company, and the California State Telegraph Company, so that the present line of telegraph between the Missouri River and San Francisco may be moved upon or along the line of said railroad and branches as fast as said roads and branches are built; and if said arrangement be entered into, and the transfer of said telegraph line be made in accordance therewith to the line of said railroad and branches, such transfer shall, for all purpose of this act, be held and considered a fulfilment on the part of said railroad companies of the provisions of this act in regard to the construction of said lines of telegraph. And, in case of disagreement, said telegraph companies are authorized to remove their line of telegraph along and upon the line of railroad herein contemplated without prejudice to the rights of said railroad companies named herein.

See sec. 15, act of 1864.

Companies to make annual report.

This section repealed (20 Stat., 169).

SEC. 20. *And be it further enacted*, That the corporation hereby created and the roads connected therewith, under the provisions of this act, shall make to the Secretary of the Treasury an annual report wherein shall be set forth—

First. The names of the stockholders and their places of residence, so far as the same can be ascertained;

Second. The names and residences of the directors, and all other officers of the company;

Third. The amount of stock subscribed, and the amount thereof actually paid in;

Fourth. A description of the lines of road surveyed, of the lines thereof fixed upon for the construction of the road, and the cost of such survey.

Fifth. The amount received from passengers on the road;

Sixth. The amount received for freight thereon;

Seventh. A statement of the expense of said road and its fixtures;

Eighth. A statement of the indebtedness of said company, setting forth the various kinds thereof. Which report shall be sworn to by the president of the said company, and shall be presented to the Secretary of the Treasury on or before the first day of July in each year.

ACT OF JULY 12, 1862.

12 Stat., 538.

AN ACT to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved, July 1, 1862.

First meeting of commissioners on Pacific Railroad and Telegraph to be held at Chicago.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first meeting of the commissioners named in the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, and of the five commissioners directed by said act to be appointed by the Secretary of the Interior, shall be held at Bryan Hall, in the city of Chicago, in the State of Illinois, on the first Tuesday in September next, at twelve o'clock, at noon. A notice of said meeting, to be signed by at least ten of the commissioners named in said act, shall be published at least once a week during the six successive weeks commencing on the twentieth of July, one thousand eight hundred and sixty-two, in one daily newspaper in each of the cities of Boston, New York, Philadelphia, Cincinnati, Chicago, and St. Louis, and no other notice of said meeting shall be requisite.

Notice.

AMENDMENT OF JULY 2, 1864.

AN ACT to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July 1, 1862. 13 Stat., 356.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the capital stock of the company entitled the Union Pacific Railroad Company, authorized by the act of which this act is amendatory, shall be in shares of one hundred dollars, instead of one thousand dollars, each; that the number of shares shall be one million, instead of one hundred thousand; and that the number of shares which any person shall hold to entitle him to serve as a director in said company (except the five directors to be appointed by the Government) shall be fifty shares instead of five shares; and that every subscriber to said capital stock for each share of one thousand dollars, heretofore subscribed, shall be entitled to a certificate for ten shares for one hundred dollars each; and that the following words in section first of said act, "which shall be subscribed for and held in not more than two hundred shares by any one person," be, and the same are hereby, repealed.

Shares of Union Pacific Railroad Company changed from \$1,000 to \$100.

Ownership of stock by directors. See sec. 1, act 1862.

SEC. 2. *And be it further enacted,* That the Union Pacific Railroad Company shall cause books to be kept open to receive subscriptions to the capital stock of said company, (until the entire capital of one hundred millions of dollars shall be subscribed), at the general office of said company in the city of New York, and in each of the cities of Boston, Philadelphia, Baltimore, Chicago, Cincinnati, and Saint Louis, at such places as may be designated by the President of the United States, and in such other localities as may be directed by him. No subscription for said stock shall be deemed valid unless the subscriber therefor shall, at the time of subscribing, pay or remit to the treasurer of the company an amount per share subscribed by him equal to the amount per share previously paid by the then existing stockholders. The said company shall make assessments upon its stockholders of not less than five dollars per share, and at intervals of not exceeding six months from and after the passage of this act, until the par value of all shares subscribed shall be fully paid; and money only shall be receivable for any such assessment, or as an equivalent for any portion of the capital stock hereinbefore authorized. The capital stock of said company shall not be increased beyond the actual cost of said road. And the stock of the company shall be deemed personal property, and shall be transferable on the books of the company, at the general office of said company in the city of New York, or at such other transfer office as the company may establish.

Books to be kept open in several cities. See sec. 1, 1862.

Per cent. to be paid.

Assessments of stockholder.

How paid.

Amount of capital. Stock personal property.

SEC. 3. *And be it further enacted,* That the Union Pacific Railroad Company, and all other companies provided for in this act and the act to which this is an amendment, be, and hereby are empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of its center line, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-house[s], or any other structures required in the construction and operating of said road. And each of said companies shall have the right to cut and remove trees or other materials that might by falling encumber its road-bed, though standing or being more than one hundred feet therefrom. And in case the owner or claimant of such lands or premises and such company can not agree as to the damages, the amount shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by any party to any judge of a court of record in any of the territories in which the lands or premises to be taken lie; and said commissioners, in their assessments of damages, shall appraise such premises at what would have been the value thereof if the road had not been built; and upon return into court of such appraisement, and upon the payment to the clerk thereof of the amount so awarded by the commissioners for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes

Additional right of way granted. See sec. 2, 1862.

Assessment of damages.

Payment and title.

- Appeal.** aforesaid. And either party feeling aggrieved by said assessment may, within thirty days, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary in the construction of its road.
- Bonds on appeal.** And said party appealing shall give bonds with sufficient surety or sureties, for the payment of any costs that may arise upon such appeal. And in case the party appealing does not obtain a more favorable verdict, such party shall pay the whole cost incurred by the appellee, as well as its own. And the payment into court for the use of the owner or claimant, of a sum equal to that finally awarded shall be held to vest in said company the title of said land, and the right to use and occupy the same for the construction, maintaining, and operating of the road of said company. And in case any of the lands to be taken as aforesaid shall be held by any person residing without the territory, or subject to any legal disability, the court may appoint a proper person who shall give bonds with sufficient surety or sureties, for the faithful execution of his trust, and who may represent in court the person disqualified or absent as aforesaid, when the same proceedings shall be had in reference to the appraisal of the premises to be taken, and with the same effect as have been already described. And the title of the company to the land taken by virtue of this act shall not be affected nor impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case it shall be necessary for either of the said companies to enter upon lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purpose of its said railroad, and may institute proceedings in manner described for the purpose of ascertaining the value of, and acquiring a title to, the same, and the court may determine the kind of notice to be served on such owner or owners, and may in its discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claim to damages against said company shall be barred. It shall be competent for the legal guardian of any infant, or any other person under guardianship, to agree with the proper company as to damages sustained by reason of the taking of any lands of any such person under disability, as aforesaid, for the use as aforesaid; and upon such agreement being made, and approved by the court having supervision of the official acts of said guardian, the said guardian shall have full power to make and execute a conveyance thereof to the said company which shall vest the title thereto in the said company.
- Costs of appeal.**
- Title after appeal.**
- Absentees and infants.**
- Unoccupied lands, how acquired.**
- Damages, how disposed of.**
- Sec. 3, 1862, amended, doubling grant of land.** SEC. 4. *And be it further enacted,* That section three of said act be hereby amended by striking out the word "five," where the same occurs in said section, and by inserting in lieu thereof the word "ten;" and by striking out the word "ten," where the same occurs in said section, and by inserting in lieu thereof the word "twenty." And section seven of said act is hereby amended by striking out the word "fifteen," where the same occurs in said section, and inserting in lieu thereof the word "twenty-five." And the term "mineral land," wherever the same occurs in this act, and the act to which this is an amendment, shall not be construed to include coal and iron land. And any lands granted by this act, or the act to which this is an amendment, shall not defeat or impair any pre-emption, homestead, swamp land, or other lawful claim, nor include any government reservation or mineral lands, or the improvements of any bona fide settler, or any lands returned and denominated as mineral lands, and the timber necessary to support his said improvement as a miner or agriculturist, to be ascertained under such rules as have been or may be established by the Commissioner of the General Land Office, in conformity with the provisions of the pre-emption laws: *Provided,* That the quantity thus exempted by the operation of this act, and the act to which this act is an amendment, shall not exceed one hundred and sixty acres for each settler who claims as an agriculturist, and such quantity for each settler who claims as a miner, as the said Commissioner may establish by general regulation: *Provided, also,* That the phrase, "but where the same shall contain timber, the timber thereon is hereby granted to said company," in the proviso to said section three, shall not apply to the timber growing or being on any land farther than ten miles from
- Sec. 7, 1862, amended, withdrawing land from sale.**
- Coal and iron not minerals.**
- Certain lands not to be granted.**
- 160 acres only exempted.**
- Timber to be company's. Sec. 8, 1862.**

the center line of any one of said roads or branches mentioned in said act, or in this act. And all lands shall be excluded from the operation of this act, and of the act to which this act is an amendment, which were located, or selected to be located, under the provisions of an act entitled "An act donating lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July second, eighteen hundred and sixty-two, and notice thereof given at the proper land office.

Other lands exempted.

SEC. 5. *And be it further enacted*, That the time for designating the general route of said railroad, and of filing the map of the same, and the time for the completion of that part of the railroads required by the terms of said act of each company, be, and the same is hereby, extended one year from the time in said act designated; and that the Central Pacific Railroad Company of California shall be required to complete twenty-five miles of their said road in each year thereafter, and the whole to the State line within four years, and that only one-half of the compensation for services rendered for the Government by said companies shall be required to be applied to the payment of the bonds issued by the Government in aid of the construction of said roads.

Time extended one year. Secs. 7 and 17, 1862, amended.

Twenty-five miles per year changed from 50. Sec. 10, 1862. Four years to State line.

Government to pay one-half for services.

SEC. 6. *And be it further enacted*, That the proviso to section four of said act is hereby modified as follows, viz: And the President of the United States is hereby authorized, at any time after the passage of this act, to appoint for each and every of said roads three commissioners, as provided for in the act to which this is amendatory; and the verified statement of the president of the California company, required by said section four, shall be filed in the office of the United States surveyor-general for the State of California, instead of being presented to the President of the United States; and the said surveyor-general shall thereupon notify the said commissioners of the filing of such statement, and the said commissioners shall thereupon proceed to examine the portion of said railroad and telegraph line so completed, and make their report thereon to the President of the United States, as provided by the act to which this is amendatory. And such statement may be filed, and such railroad and telegraph line be examined and reported on by the said commissioners, and the requisite amount of bonds may be issued and the lands appertaining thereto may be set apart, located, entered, and patented, as provided in this act and the act to which this is amendatory, upon the construction by said railroad company of California of any portion of not less than twenty consecutive miles of their said railroad and telegraph line, upon the certificate of said commissioners that such portion is completed as required by the act to which this is amendatory. And section ten of the act of which this is amendatory is hereby amended by inserting after the words "United States," in the last clause, the words "and States intervening."

Sec. 4, 1862, modified, three commissioners, &c.

Affidavit, &c., of C. P. R. Co. to be filed in California.

Lands patented. See sec. 4, 1862. Also sec. 21, this act.

Sec. 10, 1862 amended.

SEC. 7. *And be it further enacted*, That so much of section seventeen of said act as provides for a reservation by the government of a portion of the bonds to be issued to aid in the construction of the said railroads is hereby repealed. And the failure of any one company to comply fully with the conditions and requirements of this act, and the act to which this is amendatory, shall not work a forfeiture of the rights, privileges, or franchises of any other company or companies that shall have complied with the same.

Reservation of bonds by sec. 17, 1862, repealed.

Failure of one company not to affect others. Sec. 17, 1862, altered.

SEC. 8. *And be it further enacted*, That for the purpose of facilitating the work on said railroad, and of enabling the said company as early as practicable to commence the grading of said railroad in the region of the mountains, between the eastern base of the Rocky Mountains and the western base of the Sierra Nevada Mountains, so that the same may be finally completed within the time required by law, it is hereby provided that whenever the chief engineer of the said company, and said commissioners, shall certify that a certain proportion of the work required to prepare the road for the superstructure on any such section of twenty miles is done (which said certificate shall be duly verified), the Secretary of the Treasury is hereby authorized and required, upon the delivery of such certificate, to issue to said company a proportion of said bonds, not exceeding two-thirds of the amount of bonds authorized to be issued under the provisions of the act, to aid in the construction of such section of twenty miles, nor in any case exceeding two-thirds of the value of the work done, the remaining one-third to remain until the said section is fully completed and certified by the commissioners appointed by the President, according to the terms and provisions of

Partial issue of bonds on uncompleted work.

Sec. 11, 1863 modified.

Two-thirds on graded portions. See sec. 6 of this act.

U. P. R. R. Co. cannot receive for more than 300 miles in advance west of Salt Lake City. the said act; and no such bonds shall issue to the Union Pacific Railroad Company for work done west of Salt Lake City under this section, more than three hundred miles in advance of the completed continuous line of said railroad from the point of beginning on the one hundredth meridian of longitude.

Ferries and bridges.

SEC. 9. *And be it further enacted*, That to enable any one of said corporations to make convenient and necessary connections with other roads, it is hereby authorized to establish and maintain all necessary ferries upon and across the Missouri River and other rivers which its road may pass in its course; and authority is hereby given said corporation to construct bridges over said Missouri River and all other rivers for the convenience of said road: *Provided*, That any bridge or bridges it may construct over the Missouri River, or any other navigable river on the line of said road, shall be constructed with suitable and proper draws for the passage of steamboats, and shall be built, kept, and maintained, at the expense of said company, in such manner as not to impair the usefulness of said rivers for navigation to any greater extent than such structures of the most approved character necessarily do: *And provided, further*, That any company authorized by this act to construct its road and telegraph line from the Missouri River to the initial point aforesaid, may construct its road and telegraph line so as to connect with the Union Pacific Railroad at any point westwardly of such initial point, in case such company shall deem such westward connection more practicable or desirable; and in aid of the construction of so much of its road and telegraph line as shall be a departure from the route hereinbefore provided for its road, such company shall be entitled to all the benefits, and be subject to all the conditions and restrictions, of this act: *Provided, further, however*, That the bonds of the United States shall not be issued to such company for a greater amount than is hereinbefore provided, if the same had united with the Union Pacific Railroad on the 100th degree of longitude; nor shall such company be entitled to receive any greater amount of alternate sections of public lands than are also herein provided.

Roads may connect west of initial point.

No increased amount of bonds, &c.

First-mortgage bonds may have lien prior to government.

Sec. 5, 1862, modified.

See sec. 1, act of 1865.

Lien of U. S. bonds to be subordinate, &c.

20 miles instead of 40 miles, as in sec. 5, act of 1862.

Provision for bonds already issued by any companies.

Affidavit of amount of outstanding company bonds.

SEC. 10. *And be it further enacted*, That section five of said act be so modified and amended that the Union Pacific Railroad Company, the Central Pacific Railroad Company, and any other company authorized to participate in the construction of said road, may, on the completion of each section of said road, as provided in this act and the act to which this act is an amendment, issue their first-mortgage bonds on their respective railroad and telegraph lines to an amount not exceeding the amount of the bonds of the United States, and of even tenor and date, time of maturity, rate and character of interest with the bonds authorized to be issued to said railroad companies respectively. And the lien of the United States bonds shall be subordinate to that of the bonds of any or either of said companies hereby authorized to be issued on their respective roads, property, and equipments, except as to the provisions of the sixth section of the act to which this act is an amendment, relating to the transmission of dispatches and the transportation of mails, troops, munitions of war, supplies, and public stores for the Government of the United States. And said section is further amended by striking out the word "forty," and inserting in lieu thereof the word "on each and every section of not less than twenty."

SEC. 11. *And be it further enacted*, That if any of the railroad companies entitled to bonds of the United States, or to issue their first-mortgage bonds herein provided for, has, at the time of the approval of this act, issued, or shall thereafter issue, any of its own bonds or securities in such form or manner as in law or equity to entitle the same to priority or preference of payment to the said guaranteed bonds, or said first-mortgage bonds, the amount of such corporate bonds outstanding and unsatisfied, or uncanceled, shall be deducted from the amount of such government and first-mortgage bonds which the company may be entitled to receive and issue; and such an amount only of such government bonds and such first-mortgage bonds shall be granted or permitted, as added to such outstanding, unsatisfied, or uncanceled bonds of the company shall make up the whole amount per mile to which the company would otherwise have been entitled: *And provided, further*, That before any bonds shall be so given by the United States, the company claiming them shall present to the Secretary of the Treasury an affidavit of the president and secretary of the company, to be sworn to before the judge of a court of record, setting forth whether said company has

issued any such bonds or securities, and, if so, particularly describing the same, and such other evidence as the secretary may require, so as to enable him to make the deduction herein required; and such affidavit shall then be filed and deposited in the office of the Secretary of the Interior. And any person swearing falsely to any such affidavit, shall be deemed guilty of perjury, and, on conviction thereof, shall be punished as aforesaid: *Provided, also*, That no land granted by this act shall be conveyed to any party or parties, and no bonds shall be issued to any company or companies, party or parties, on account of any road or part thereof, made prior to the passage of the act to which this act is an amendment, or made subsequent thereto under the provisions of any act or acts other than this act, and the act amended by this act.

No land or bonds to go to any co. on road made prior to act of 1862.

SEC. 12. *And be it further enacted*, That the Leavenworth, Pawnee, and Western Railroad Company, now known as the Union Pacific Railroad Company, eastern division, shall build the railroad from the mouth of Kansas River, by the way of Leavenworth, or, if that be not deemed the best route, then the said company shall, within two years, build a railroad from the city of Leavenworth to unite with the main stem at or near the city of Lawrence; but to aid in the construction of said branch the said company shall not be entitled to any bonds. And if the Union Pacific Railroad Company shall not be proceeding in good faith to build the said railroad through the Territories when the Leavenworth, Pawnee, and Western Railroad Company, now known as the Union Pacific Railroad Company, eastern division, shall have completed their road to the hundredth degree of longitude, then the last named company may proceed to make said road westward until it meets and connects with the Central Pacific Railroad Company on the same line. And the said railroad from the mouth of Kansas River, to one hundredth meridian of longitude shall be made by the way of Lawrence and Topeka, or on the bank of the Kansas River, opposite said towns: *Provided*, That no bonds shall be issued or lands certified by the United States to any person or company for the construction of any part of the main trunk line of said railroad west of the one hundredth meridian of longitude and east of the Rocky Mountains, until said road shall be completed from or near Omaha, on the Missouri River, to the said one hundredth meridian of longitude.

Leavenworth and Lawrence roads, no bonds.

If built to 100th meridian, may proceed in default of U. P. R.

By way of Lawrence and Topeka, or opposite to 100th meridian. West of that line no bonds shall be issued, &c.

SEC. 13. *And be it further enacted*, That at and after the next election of directors, the number of directors to be elected by the stockholders shall be fifteen; and the number of directors to be appointed by the President shall be five; and the President shall appoint three additional directors to serve until the next regular election, and thereafter five directors. At least one of said Government directors shall be placed on each of the standing committees of said company and at least one on every special committee that may be appointed. The Government directors shall, from time to time, report to the Secretary of the Interior, in answer to any inquiries he may make of them, touching the condition, management, and progress of the work, and shall communicate to the Secretary of the Interior, at any time, such information as should be in the possession of the Department. They shall, as often as may be necessary to a full knowledge of the condition and management of the line, visit all portions of the line of road, whether built or surveyed; and, while absent from home, attending to their duties as directors, shall be paid their actual traveling expenses, and be allowed and paid such reasonable compensation for their time actually employed as the board of directors may decide.

Directors, 15; Government directors, 5. Sec. 1, 1862, modified.

One Government director on committees. Government directors to report, &c.

To visit road, &c.

SEC. 14. *And be it further enacted*, That the next election for directors of said railroad shall be held on the first Wednesday of October next at the office of said company in the city of New York, between the hours of 10 o'clock a. m. and four o'clock p. m. of said day; and all subsequent regular elections shall be held annually thereafter at the same place; and the directors shall hold their office for one year, and until their successors qualified.

Directors, when elected and where—(Sec. 1, 1862), for one year.

SEC. 15. *And be it further enacted*, That the several companies authorized to construct the aforesaid roads are hereby required to operate and use said roads and telegraph for all purposes of communication, travel, and transportation, so far as the public and the Government are concerned, as one continuous line; and, in such operation and use, to afford and secure to each equal advantages and facilities as to rates, time, and transportation, without any discrimination of any kind in favor of the road or business of any or either of said companies, or

Road to be used as one continuous line. See sec. 12, act of 1862.

Must telegraph
for all persons.
See sec. 19, act of
1862.

Companies may
consolidate. See
sec. 16, act of
1862; also sec. 10,
1862.

Consolidated
companies may
build portion of
the line left un-
completed by any
company.

Powers and du-
ties of consolida-
ted organization.

adverse to the road or business of any or either of the others, and it shall not be lawful for the proprietors of any line of telegraph, authorized by this act, or the act amended by this act, to refuse or fail to convey for all persons requiring the transmission of news and messages of like character, on pain of forfeiting to the person injured for each offense, the sum of one hundred dollars, and such other damage as he may have suffered on account of said refusal or failure, to be sued for and recovered in any court of the United States, or of any State or Territory of competent jurisdiction.

SEC. 16. *And be it further enacted*, That any two or more of the companies authorized to participate in the benefits of this act, are hereby authorized at any time to unite and consolidate their organizations, as the same may or shall be, upon such terms and conditions, and in such manner as they may agree upon, and as shall not be incompatible with this act, or the laws of the State or States in which the road of such companies may be, and to assume and adopt such corporate name and style as they may agree upon, with a capital stock not to exceed the actual cost of the roads, so to be consolidated, and shall file a copy of such consolidation in the Department of the Interior; and thereupon such organization, so formed and consolidated, shall succeed to, possess, and be entitled to receive from the Government of the United States, all and singular the grants, benefits, immunities, guaranties, acts, and things to be done and performed and be subject to the same terms, conditions, restrictions, and requirements which said companies, respectively, at the time of such consolidation, are or may be entitled or subject to under this act, in place and substitution of said companies so consolidated respectively. And all other provisions of this act, so far as applicable, relating or in any manner appertaining to the companies so consolidated, or either thereof, shall apply and be of force as to such consolidated organization. And in case upon the completion by such consolidated organization of the roads, or either of them, of the companies so consolidated, any other of the road or roads of either of the other companies authorized as aforesaid (and forming, and intended or necessary to form, a portion of a continuous line from each of the several points on the Missouri River, hereinbefore designated, to the Pacific coast), shall not have constructed the number of miles of its said road within the time herein required, such consolidated organization is hereby authorized to continue the construction of its road and telegraph in the general direction and route upon which such incomplete or unconstructed road is hereinbefore authorized to be built, until such continuation of the road of such consolidated organization shall reach the constructed road and telegraph of said other company, and at such point to connect and unite therewith; and for and in aid thereof the said consolidated organization may do and perform, in reference to such portion of road and telegraph as shall so be in continuation of its constructed road and telegraph, and to the construction and equipment thereof, all and singular, the several acts and things hereinbefore provided, authorized, or granted to be done by the company hereinbefore authorized to construct and equip the same, and shall be entitled to similar and like grants, benefits, immunities, guarantees, acts, and things to be done and performed by the Government of the United States, by the President of the United States, by the Secretaries of the Treasury and Interior and by commissioners in reference to such company, and to such portion of the road hereinbefore authorized to be constructed by it, and upon the like and similar terms and conditions, so far as the same are applicable thereto. And said consolidated company shall pay to said defaulting company the value to be estimated by competent engineers of all the work done and material furnished by said defaulting company, which may be adopted and used by said consolidated company in the progress of the work under the provisions of this section: *Provided, nevertheless*, That said defaulting company may at any time before receiving pay for its said work and material, as hereinbefore provided, on its own election, pay said consolidated company the value of the work done and material furnished by said consolidated company, to be estimated by competent engineers, necessary for, and used in, the construction of the road of said defaulting company, and resume the control of its said road; and all the rights, benefits, and privileges which shall be acquired, possessed, or exercised, pursuant to this section, shall be to that extent an abatement of the rights, benefits, and privileges hereinbefore granted to such other company. And in case any company authorized thereto,

shall not enter into such consolidated organization, such company, upon the completion of its road as hereinbefore provided, shall be entitled to and is hereby authorized to, continue and extend the same under the circumstances, and in accordance with the provisions of this section, and to have all the benefits thereof, as fully and completely as are herein provided, touching such consolidated organization. And in case more than one such consolidated organization shall be made, pursuant to this act, the terms and conditions of this act, hereinbefore recited as to one, shall apply in like manner, force, and effect to the other: *Provided, however,* That rights and interests at any time acquired by one such consolidated organization, shall not be impaired by another thereof. It is further provided that should the Central Pacific Railroad Company of California complete their line to the eastern line of the State of California, before the line of the Union Pacific Railroad Company shall have been extended westward so as to meet the line of said first-named company, said first named company may extend their line of road eastward one hundred and fifty miles, on the established route, so as to meet and connect with the line of the Union Pacific Road, complying in all respects with the provisions and restrictions of this act as to said Union Pacific Road, and upon doing so, shall enjoy all the rights, privileges, and benefits conferred by this act on said Union Pacific Railroad Company.

When Central Pacific Road shall reach eastern line of said State, may go on 150 miles if road not met. Sec. 10, 1862, amended. Also see sec. 2, 1866.

SEC. 17. *And be it further enacted,* That so much of section fourteen of said act as relates to a branch from Sioux City be, and the same is hereby, amended so as to read as follows: That whenever a line of railroad shall be completed through the States of Iowa, or Minnesota, to Sioux City, such company, now organized or may hereafter be organized under the laws of Iowa, Minnesota, Dakota, or Nebraska, as the President of the United States, by its request, may designate or approve for that purpose, shall construct and operate a line of railroad and telegraph from Sioux City, upon the most direct and practicable route to such a point on, and so as to connect with, the Iowa branch of the Union Pacific Railroad from Omaha, or the Union Pacific Railroad, as such company may select, and on the same terms and conditions as are provided in this act and the act to which this is an amendment, for the construction of the said Union and Pacific Railroad and telegraph line and branches; and said company shall complete the same at the rate of fifty miles per year; *Provided,* That said Union Pacific Railroad Company shall be, and is hereby, released from the construction of said branch. And said company constructing said branch shall not be entitled to receive in bonds an amount larger than the said Union Pacific Railroad Company would be entitled to receive if it had constructed the branch under this act and the act to which this is an amendment; but said company shall be entitled to receive alternate sections of land for ten miles in width on each side of the same along the whole length of said branch: *And provided further,* That if a railroad should not be completed to Sioux City, across Iowa or Minnesota, within eighteen months from the date of this act, then said company designated by the President, as aforesaid, may commence, continue, and complete the construction of said branch as contemplated by the provisions of this act: *Provided, however,* That if the said company so designated by the President as aforesaid shall not complete the said branch from Sioux City to the Pacific Railroad within ten years from the passage of this act, then, and in that case, all the railroad which shall have been constructed by said company shall be forfeited to, and become the property of, the United States.

Sec. 14, 1862, amended as to Sioux City Branch Road.

SEC. 18. *And be it further enacted,* That the Burlington and Missouri River Railroad Company, a corporation organized under and by virtue of the laws of the State of Iowa, be and hereby is, authorized to extend i[t]s road through the Territory of Nebraska from the point where it strikes the Missouri River south of the mouth of the Platte River, to some point not further west than the one hundredth meridian of west longitude, so as to connect, by the most practicable route, with the main trunk of the Union Pacific Railroad, or that part of it which runs from Omaha to the said one hundredth meridian of west longitude. And for the purpose of enabling said Burlington and Missouri River Railroad Company to construct that portion of their road herein authorized, the right of way through the public lands is hereby granted to said company for the construction of said road. And the right, power, and authority is hereby given to said company to take from the public lands

Burlington and M. R. R. Co. may extend road, &c.

Right of way, &c.

U. S. to extin-
guish Indian ti-
tles. Sec. 2, 1862.

adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof. Said right of way is granted to said company to the extent of two hundred feet where it may pass over the public lands, including all necessary grounds for stations, buildings, work-shops, depots, machine-shops, switches, side-tracks, turn-tables, and water-stations. And the United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the said Indians, the Indian titles to all lands falling under the operation of this section and required for the said right of way and grant of land herein made.

Land grant to
Burlington and
M. R. R. Co.

SEC. 19. *And be it further enacted*, That for the purpose of aiding in the construction of said road, there be, and hereby is, granted to the said Burlington and Missouri River Railroad Company, every alternate section of public land (excepting mineral lands as provided in this act) designated by odd numbers, to the amount of ten alternate sections per mile on each side of said road, on the line thereof, and not sold, reserved, or otherwise disposed of by the United States, and to which a pre-emption or homestead claim may not have attached at the time the line of said road is definitely fixed: *Provided*, That said company shall accept this grant within one year from the passage of this act, by filing such acceptance with the Secretary of the Interior, and shall also establish the line of said road, and file a map thereof with the Secretary of the Interior within one year of the date of said acceptance, when the said Secretary shall withdraw the lands embraced in this grant from market.

Burlington and
M. R. R. Co.
lands, &c.

SEC. 20. *And be it further enacted*, That whenever said Burlington and Missouri River Railroad Company shall have completed twenty consecutive miles of the road mentioned in the foregoing section, in the manner provided for other roads mentioned in this act, and the act to which this is an amendment, the President of the United States shall appoint three commissioners to examine and report to him in relation thereto; and if it shall appear to him that twenty miles of said road have been completed as required by this act, then, upon certificate of said commissioner[s] to that effect, patents shall issue conveying the right and title to said lands to said company on each side of said road, as far as the same is completed, to the amount aforesaid; and such examination, report, and conveyance, by patents, shall continue, from time to time, in like manner, until said roads shall have been completed. And the President shall appoint said commissioners, to fill vacancies in said commission, as provided in relation to other roads mentioned in the act to which this is an amendment. And the said company shall be entitled to all the privileges and immunities granted to the Hannibal and Saint Joseph's Railroad Company by the said last-mentioned act, so far as the same may be applicable: *Provided*, That no Government bonds shall be issued to the said Burlington and Missouri River Railroad Company to aid in the construction of said extension of its road; and provided, further, that said extension shall be completed within the period of ten years from the passage of this act.

Bonds.

Lands not to be
conveyed to any
company until
they pay cost of
survey, &c. Sec.
4, 1862. Sec. 6,
1864.

SEC. 21. *And be it further enacted*, That before any land granted by this act shall be conveyed to any company or party entitled thereto under this act, there shall first be paid into the Treasury of the United States the cost of surveying, selecting, and conveying the same, by the said company or party in interest, as the titles shall be required by said company, which amount shall, without any further appropriation, stand to the credit of the proper account, to be used by the Commissioner of the General Land Office for the prosecution of the survey of the public lands along the line of said road, and so from year to year until the whole shall be completed, as provided under the provisions of this act.

Sec. 18, 1862.

SEC. 22. *And be it further enacted*, That Congress may, at any time, alter, amend, or repeal this act.

AMENDMENT OF MARCH 3, 1865.

AN ACT to amend an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, and to amend an act amendatory thereof, approved July second, eighteen hundred and sixty-four.

13 Stat., 504.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section ten of said act of July second, eighteen hundred and sixty-four, be so modified and amended as to allow the Central Pacific Railroad Company, and the Western Pacific Railroad Company, of California, the Union Pacific Railroad Company, the Union Pacific Railroad Company, eastern division, and all other companies provided for in the said acts of the second of July, eighteen hundred and sixty-four, to issue their six per centum thirty years' bonds, interest payable in any lawful money of the United States, upon their separate roads. And the said companies are hereby authorized to issue, respectively, their bonds to the extent of one hundred miles in advance of a continuous completed line of construction.

May issue bonds 100 miles in advance of completed line, interest payable in any lawful money. Sec. 10, 1864.

SEC. 2. *And be it further enacted,* That the assignment made by the Central Pacific Railroad Company of California to the Western Pacific Railroad Company of said State, of the right to construct all that portion of said railroad and telegraph from the city of San José to the city of Sacramento, is hereby ratified and confirmed to the said Western Pacific Railroad Company, with all the privileges and benefits of the several acts of Congress relating thereto, and subject to all the conditions thereof: *Provided,* That the time within which the said Western Pacific Railroad Company shall be required to construct the first twenty miles of their said road, shall be one year from the first day of July, eighteen hundred and sixty-five, and that the entire road shall be completed from San José to Sacramento, connecting at the latter point with the said Central Pacific Railroad, within four years thereafter.

Assignment confirmed to San José and Sacramento Road.

AMENDMENT OF JULY 3, 1866.

AN ACT to amend an act entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes,' approved July first, eighteen hundred and sixty-two," approved July second, eighteen hundred and sixty-four.

14 Stat., 79.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Union Pacific Railway Company, eastern division, is hereby authorized to designate the general route of their said road and to file a map thereof, as now required by law, at any time before the first day of December, eighteen hundred and sixty-six; and upon the filing of the said map, showing the general route of said road, the lands along the entire line thereof, so far as the same may be designated, shall be reserved from sale by order of the Secretary of the Interior: *Provided,* That said company shall be entitled to only the same amount of the bonds of the United States to aid in the construction of their line of railroad and telegraph as they would have been entitled to if they had connected their said line with the Union Pacific Railroad on the one hundredth degree of longitude as now required by law: *And provided further,* That said company shall connect their line of railroad and telegraph with the Union Pacific Railroad, but not at a point more than fifty miles westwardly from the meridian of Denver in Colorado.

U. P. R. R. Co., E. D., time for filing map extended.

SEC. 2. *And be it further enacted,* That the Union Pacific Railroad Company, with the consent and approval of the Secretary of the Interior, are hereby authorized to locate, construct, and continue their road from Omaha, in Nebraska Territory, westward, according to the best and most practicable route, and without reference to the initial point on the one hundredth meridian of west longitude, as now provided by law, in a continuous completed line, until they shall meet and connect with the Central Pacific Railroad Company of California; and the Central Pacific Railroad Company of California, with the consent and approval of the Secretary of the Interior, are hereby authorized to locate,

U. P. R. R., to proceed till meet.

Central Pacific may continue their road eastward with con-

sent of Secretary of the Interior till met by U. P. R. R. Co. Sec. 10, 1862, and Sec. 16, 1864, amended. construct, and continue their road eastward, in a continuous completed line, until they shall meet and connect with the Union Pacific Railroad: *Provided*, That each of the above named companies shall have the right, when the nature of the work to be done, by reason of deep cuts and tunnels, shall for the expeditious construction of the Pacific Railroad require it, to work for an extent of not to exceed three hundred miles in advance of their continuous completed line.

ACT OF JUNE 25, 1863.

16 Stat., 79-

*AN ACT relative to filing reports of railroad companies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the reports required to be made to the Secretary of the Treasury on or before the first day of July of each year, by the corporations created by or entitled to subsidies under the provisions of an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, and the acts supplemental to and amendatory thereof, shall hereafter be made to the Secretary of the Interior, on or before the first day of October of each year. Said reports shall furnish full and specific information upon the several points mentioned in the twentieth section of the said act of eighteen hundred and sixty-two, and shall be verified as therein prescribed, and on failure to make the same as herein required, the issue of bonds or patents to the company in default shall be suspended until the requirements of this act shall be complied with by such company. And the reports hitherto made to the Secretary of the Treasury under the said act of July first, eighteen hundred and sixty-two, shall be transferred and delivered by him to the Secretary of the Interior to be filed by him.

Reports of certain railroads to be made on or before October 1 in each year to Secretary of Interior.

To contain what.

Former reports.

Reports of commissioners to be made to Department of Interior.

Repealing clause.

Reports of engineers and other officers who make reports to be furnished.

SEC. 3. *And be it further enacted*, That the reports required from the commissioners appointed to examine and report in relation to the road of any of the corporations whereto reference is made in this act, shall be addressed to and filed in the Department of the Interior; and all such reports heretofore made shall be transferred to and filed in said Department of the Interior; and so much of any and all acts as requires any reports from such companies, or any officers thereof, to be made to the Secretary of the Treasury, is hereby repealed.

SEC. 4. *And be it further enacted*, That, in addition to the eight subjects referred to in section twenty of the act of July, eighteen hundred and sixty-two, to be reported upon, there shall also be furnished annually to the Secretary of the Interior all reports of engineers, superintendents, or other officers who make annual reports to any of said railroad companies.

AN ACT RELATING TO THE DENVER PACIFIC, MARCH 3, 1869.

15 Stat., 324.

AN ACT to authorize the transfer of lands granted to the Union Pacific Railway Company, Eastern Division, between Denver and the point of its connection with the Union Pacific Railway, to the Denver Pacific Railway and Telegraph Company, and to expedite the completion of railroads to Denver, in the Territory of Colorado.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Union Pacific Railway Company, Eastern Division, be, and it hereby is, authorized to contract with the Denver Pacific Railway and Telegraph Company, a corporation existing under the laws of the Territory of Colorado, for the construction, operation, and maintenance of that part of its line of railroad and telegraph between Denver City and its point of connection with the Union Pacific Railroad, which point shall be at Cheyenne, and to adopt the road-bed already graded by said Denver Pacific Railway and Telegraph Company as said line, and to grant to said

* Repealed by act of June 19, 1878.

Denver Pacific Railway and Telegraph Company the perpetual use of its right of way and depot grounds, and to transfer to it all the rights and privileges, subject to all the obligations pertaining to said part of its line.

SEC. 2. *And be it further enacted*, That the said Union Pacific Railway Company, Eastern Division, shall extend its railroad and telegraph to a connection at the city of Denver, so as to form with that part of its line herein authorized to be constructed, operated, and maintained by the Denver Pacific Railway and Telegraph Company, a continuous line of railroad and telegraph from Kansas City, by way of Denver to Cheyenne. And all the provisions of law for the operation of the Union Pacific Railroad, its branches and connections, as a continuous line, without discrimination, shall apply the same as if the road from Denver to Cheyenne had been constructed by the said Union Pacific Railway Company, Eastern Division; but nothing herein shall authorize the said Eastern Division Company to operate the road or fix the rates of tariff for the Denver Pacific Railway and Telegraph Company.

Shall extend its railroad and telegraph to, &c., so as to form continuous line from Kansas City to Cheyenne, &c.

Laws to apply.

Operating of road and rates of tariff not affected.

SEC. 3. *And be it further enacted*, That said companies are hereby authorized to mortgage their respective portions of said road, as herein defined, for an amount not exceeding thirty-two thousand dollars per mile, to enable them respectively to borrow money to construct the same; and that each of said companies shall receive patents to the alternate sections of land along their respective lines of road, as herein defined, in like manner and within the same limits as is provided by law in the case of lands granted to the Union Pacific Railway Company, Eastern Division: *Provided*, That neither of the companies hereinbefore mentioned shall be entitled to subsidy in United States bonds under the provisions of this act.

The companies may mortgage their roads.

To receive patents for alternate sections of land.

But not entitled to subsidy in United States bonds.

JOINT RESOLUTION OF MARCH 3, 1869.

JOINT RESOLUTION authorizing the Union Pacific Railway Company, Eastern Division, to change its name to the "Kansas Pacific Railway Company." 15 Stat., 348.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Union Pacific Railway Company, Eastern Division, is hereby authorized by resolution of its board of directors, which shall be filed in the office of the Secretary of the Interior, to change its name to the "Kansas Pacific Railway Company."

Union Pacific Railway Company, Eastern Division, to change its name to Kansas Pacific Railway Company.

JOINT RESOLUTION OF APRIL 10, 1869.

JOINT RESOLUTION for the protection of the interests of the United States in the Union Pacific Railroad Company, the Central Pacific Railroad Company, and for other purposes. 16 Stat., 56.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the stockholders of the Union Pacific Railroad Company, at a meeting to be held on the twenty-second day of April, eighteen hundred and sixty-nine, at the city of Boston (with power to adjourn from day to day), shall elect a board of directors for the ensuing year; and said stockholders are hereby authorized to establish their general office at such place in the United States as they may select at said meeting: *Provided*, That the passage of this resolution shall not confer any other right upon said Union Pacific Railroad Company than to hold such election, or be held in any manner to relinquish or wave any rights of the United States to take advantage of any act or neglect of said Union Pacific Railroad Company heretofore done or omitted whereby the rights of the General Government have been or may be prejudiced: *And provided, further*, That the common terminus of the Union Pacific and the Central Pacific Railroads shall be at or near Ogden; and the Union Pacific Railroad Company shall build, and the Central Pacific Railroad Company pay for and own the railroad from the terminus aforesaid to Promontory Summit, at which point the rails shall meet and connect and form one continuous line.

Stockholders of Union Pacific R. Co. to elect a board of directors.

To establish their general office.

No other right conferred or waived hereby.

Common terminus of the Union Pacific and Central Pacific Railroad to be at or near Ogden, &c.

The President to appoint a commission to examine and report upon the roads.

Expenses and pay of commissioners.

Subsidy bonds to be withheld sufficient to secure the full completion, as a first-class road, of all sections of such road, &c.

If the amount to be issued is insufficient, &c.

Attorney-General to institute necessary suits.

Attorney-General to investigate whether the charter of the Union Pacific and Central Pacific Railroads have not been forfeited, &c.

To institute criminal proceedings, if, &c.

SEC. 2. *And be it further resolved*, That to ascertain the condition of the Union Pacific Railroad and the Central Pacific Railroad, the President of the United States is authorized to appoint a board of eminent citizens, not exceeding five in number, and who shall not be interested in either road, to examine and report upon the condition of, and what sum or sums, if any, will be required to complete each of said roads, for the entire length thereof, to the said terminus as a first-class railroad, in compliance with the several acts relating to said roads; and the expense of such board, including an allowance of ten dollars to each for their services for each day employed in such examination or report, to be paid equally by said companies.

SEC. 3. *And be it further resolved*, That the President is hereby authorized and required to withhold from each of said companies an amount of subsidy bonds authorized to be issued by the United States under said acts sufficient to secure the full completion as a first-class road of all sections of such road upon which bonds have already been issued, or in lieu of such bonds he may receive as such security an equal amount of the first mortgage bonds of such company; and if it shall appear to the President that the amount of subsidy bonds yet to be issued to either of said companies is sufficient to insure the full completion of such road, he may make requisition upon such company for a sufficient amount of bonds already issued to said company, or in his discretion of their first mortgage bonds, to secure the full completion of the same. And in default of obtaining such security as [is] in this section provided, the President may authorize and direct the Attorney-General to institute such suits and proceedings on behalf and in the name of the United States, in any court of the United States having jurisdiction, as shall be necessary or proper to compel the giving of such security, and thereby, or in any manner otherwise, to protect the interests of the United States in said road, and to insure the full completion thereof as a first-class road, as required by law and the statutes in that case made.

SEC. 4. *And be it further resolved*, That the Attorney-General of the United States be, and he is hereby, authorized and directed to investigate whether or not the charter and all the franchises of the Union Pacific Railroad Company and of the Central Pacific Railroad Company have not been forfeited, and to institute all necessary and proper legal proceedings; also to investigate whether or not said companies have or have not made any illegal dividends upon their stock, and if so to institute the necessary proceedings to have the same reimbursed; and also to investigate whether any of the directors or any other agents or employes of said companies have or not violated any penal law, and if so to institute the proper criminal proceedings against all persons who have violated such laws.

ACT OF MAY 6, 1870.

16 Stat., 121. AN ACT to fix the point of junction of the Union Pacific Railroad Company and the Central Pacific Railroad Company.

Point of junction of the Union Pacific Railroad and the Central Pacific R. R. established northwest of the station at Ogden, &c.

Grant of certain sections.

Reserve for schools.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the common terminus and point of junction of the Union Pacific Railroad Company and the Central Pacific Railroad Company shall be definitely fixed and established on the line of railroad as now located and constructed, northwest of the station at Ogden, and within the limits of the sections of land herein-after mentioned, viz: Section thirty-six of township seven, of range two, situated north and west of the principal meridian and base line in the territory of Utah, and sections twenty-five, twenty-six, and thirty-five of township seven, of range two, and section six of township six, and sections thirty and thirty-one of township seven, of range one, and sections one and two of township six, of range two, all situate north and west of said principal meridian and base line; and said companies are hereby authorized to enter upon, use, and possess said sections, which are hereby granted to them in equal shares, with the same rights, privileges, and obligations now by law provided with reference to other lands granted to said railroads: *Provided, however*, That the Secretary of the Interior shall designate a section of land in said township seven, of range two, belonging to said companies, and reserve the same for the

benefit of schools in said territory, in accordance with the act of February twenty-one, eighteen hundred and fifty-five, establishing the office of surveyor-general of Utah, and to grant land for school and university purposes: *Provided also*, That said companies shall pay for any additional lands acquired by this act at the rate of two dollars and fifty cents an acre: *And provided further*, That no rights of private persons shall be affected by this act.

Price of land.
Private rights.

ACT OF FEBRUARY 24, 1871.

16 Stat., 430.

AN ACT to authorize the Union Pacific Railroad Company to issue its bonds to construct a bridge across the Missouri River at Omaha, Nebraska, and Council Bluffs, Iowa.

Union Pacific Railroad Co. may issue bonds, &c., to construct, &c., a bridge across the Missouri River at Omaha.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That for the more perfect connection of any railroads that are or shall be constructed to the Missouri River, at or near Council Bluffs, Iowa, and Omaha, Nebraska, the Union Pacific Railroad Company be, and it is hereby, authorized to issue such bonds, and secure the same by mortgage on the bridge and approaches and appurtenances, as it may deem needful to construct and maintain its bridge over said river, and the tracks and depots required to perfect the same, as now authorized by law of Congress; and said bridge may be so constructed as to provide for the passage of ordinary vehicles and travel, and said company may levy and collect tolls and charges for the use of the same; and for the use and protection of said bridge and property, the Union Pacific Railway Company shall be empowered, governed, and limited by the provisions of the act entitled "An act to authorize the construction of certain bridges, and to establish them as post-roads," approved July twenty-five, eighteen hundred and sixty-six, so far as the same is applicable thereto: *And provided*, That nothing in this act shall be so construed as to change the eastern terminus of the Union Pacific Railroad from the place where it is now fixed under existing laws, nor to release said Union Pacific Railroad Company, or its successors, from its obligation as established by existing laws: *Provided also*, That Congress shall at all times have power to regulate said bridge, and the rates for the transportation of freight and passengers over the same, and the local travel hereinbefore provided for. And the amount of bonds herein authorized shall not exceed two and a half millions of dollars: *Provided*, That if said bridge shall be constructed as a draw-bridge, the same shall be constructed with spans of not less than two hundred feet in length in the clear on each side of the central or pivot pier of the draw.

Construction of bridge, tolls, &c.

Eastern terminus of railroad not to be changed.

Congress may regulate tolls and fares.

Amount of bonds.
Draws.

ACT OF MARCH 3, 1871.

AN ACT making appropriations for the support of the Army for the year ending June 30, 1872, &c.

Stat., 225.

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SEC. 9. That, in accordance with the fifth section of the act approved July two, eighteen hundred and sixty-four, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes,' approved July first, eighteen hundred and sixty-two," the Secretary of the Treasury is hereby directed to pay over in money to the Pacific Railroad companies mentioned in said act, and performing services for the United States, one-half of the compensation at the rate provided by law for such services, heretofore or hereafter rendered: *Provided*, That this section shall not be construed to affect the legal rights of the Government or the obligations of the companies, except as herein specifically provided.

Secretary of Treasury to pay over to Pacific Railroad Companies one-half of compensation, &c.

Legal rights of parties not otherwise affected.

ACT OF MARCH 3, 1873.

17 Stat., 508.

An act making appropriations for the legislative, executive, and judicial expenses of the Government for the year ending June 30, 1874, and for other purposes.

Secretary of the Treasury to withhold payments to certain railroad companies for freight, &c.

Companies may bring suit in Court of Claims.

Appeal to Supreme Court. Causes to have precedence.

Attorney-General to bring suit in equity against the Union Pacific Railroad Company and all persons who, etc.

Suit to be brought in any circuit court. Decrees.

New parties, etc.

Writs of subpoena to run into any district, and how served.

Books of the railroad company to be open to inspection.

Bankrupt laws not to apply.

Dividends, new stock, mortgages, etc.

No director to be interested in any contract, except, etc.

Penalty.

Jurisdiction of circuit court to issue mandamus,

SEC. 2. That the Secretary of the Treasury is directed to withhold all payments to any railroad company and its assigns, on account of freights or transportation, over their respective roads, of any kind, to the amount of payments made by the United States for interest upon bonds of the United States issued to any such company, and which shall not have been reimbursed together with the five per cent. of net earnings due and unapplied as provided by law; and any such company may bring suit in the Court of Claims to recover the price of such freight and transportation; and in such suit the right of such company to recover the same upon the law and the facts of the case shall be determined and also the rights of the United States upon the merits of all the points presented by it in answer thereto by them and either party to such suit may appeal to the Supreme Court; and both said courts shall give such cause or causes precedence of all other business.

SEC. 4. That the Attorney-General shall cause a suit in equity to be instituted in the name of the United States against the Union Pacific Railroad Company, and against all persons who may, in their own names or through any agents, have subscribed for or received capital stock in said road, which stock has not been paid for in full in money, or who may have received, as dividends or otherwise, portions of the capital stock of said road, or the proceeds or avails thereof, or other property of said road, unlawfully and contrary to equity, or who may have received as profits or proceeds of contracts for construction, or equipments of said road, or other contracts therewith, moneys or other property which ought, in equity, to belong to said railroad corporation, or who may, under pretense of having complied with the acts to which this is an addition, have wrongfully and unlawfully received from the United States bonds, moneys, or lands which ought, in equity, to be accounted for and paid to said railroad company or to the United States, and to compel payment for said stock, and the collection and payment of such moneys, and the restoration of such property, or its value, either to said railroad corporation or to the United States, whichever shall in equity be held entitled thereto. Said suit may be brought in the circuit court in any circuit, and all said parties may be made defendants in one suit. Decrees may be entered and enforced against any one or more parties defendant without awaiting the final determination of the cause against other parties. The court where said cause is pending may make such orders and decrees and issue such process as it shall deem necessary to bring in new parties or the representatives of parties deceased, or to carry into effect the purposes of this act. On filing the bill writs of subpoena may be issued by said court against any parties defendant, which writ shall run into any district, and shall be served, as other like process, by the marshal of such district. The books, records, correspondence, and all other documents of the Union Pacific Railroad Company, shall at all times be open to inspection by the Secretary of the Treasury, or such persons as he may delegate for that purpose. The laws of the United States providing for proceedings in bankruptcy shall not be held to apply to said corporation. No dividend shall hereafter be made by said company but from the actual net earnings thereof; and no new stock shall be issued, or mortgages or pledges made on the property or future earnings of the company, without leave of Congress, except for the purpose of funding and securing debt now existing, or the renewal thereof. No director or officer of said road shall hereafter be interested, directly or indirectly, in any contract therewith, except for his lawful compensation as such officer. Any director or officer who shall pay or declare, or aid in paying or declaring any dividend, or creating any mortgage or pledge prohibited by this act, shall be punished by imprisonment not exceeding two years, and by fine not exceeding five thousand dollars. The proper circuit court of the United States shall have jurisdiction to hear and determine all cases of mandamus to compel said Union Pacific Railroad Company to operate its road as required by law.

ACT OF JUNE 20, 1874.

AN ACT making additions to the fifteenth section of the act approved July 2, 1864, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes,' approved July 1, 1862." 18 Stat., 111.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and is hereby, added to the fifteenth section of the act approved July second, eighteen hundred and sixty-four, entitled "An act to amend an act entitled 'An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes,' approved July first, eighteen hundred and sixty-two," the following words, namely: "And any officer or agent of the companies authorized to construct the aforesaid roads, or of any company engaged in operating either of said roads, who shall refuse to operate and use the road or telegraph under his control, or which he is engaged in operating for all purposes of communication, travel, and transportation, so far as the public and the government are concerned, as one continuous line, or shall refuse, in such operation and use, to afford and secure to each of said roads equal advantages and facilities as to rates, time, or transportation, without any discrimination of any kind in favor of, or adverse to, the road or business of any or either of said companies, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined in any sum not exceeding one thousand dollars, and may be imprisoned not less than six months. In case of failure or refusal of the Union Pacific Railroad Company, or either of said branches, to comply with the requirements of this act and the acts to which this act is amendatory, the party injured or the company aggrieved may bring an action in the district or circuit court of the the United States in the territory, district, or circuit in which any portion of the road of the defendant may be situated, for damages on account of such failure or refusal; and, upon recovery, the plaintiff shall be entitled to judgment for treble the amount of all excess of freight and fares collected by the defendant, and for treble the amount of damages sustained by the plaintiff by such failure or refusal; and for each and every violation of or failure to comply with the requirements of this act, a new cause of action shall arise; and in case of suit in any such territory, district, or circuit, process may be served upon any agent of the defendant found in the territory, district, or circuit in which such suit may be brought, and such service shall be by the court held to be good and sufficient; and it is hereby provided that for all the purposes of said act, and of the acts amendatory thereof, the railway of the Denver Pacific Railway and Telegraph Company shall be deemed and taken to be a part and extension of the road of the Kansas Pacific Railroad, to the point of junction thereof with the road of the Union Pacific Railroad at Cheyenne, as provided in the act of March third, eighteen hundred and sixty-nine.

Certain roads to be operated as continuous line with equal facilities.

Agents or officers to be fined in case of refusal.

Union Pacific Company to be sued in case of refusal.

Penalty fixed.

ACT OF JUNE 22, 1874.

AN ACT providing for the collection of moneys due the United States from the Pacific Railroad Companies. 18 Stat., 200.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and hereby is, directed to require payment of the railroad companies, their successors and assigns, or the successors or assigns of any or either of said companies, of all sums of money due or to become due, the United States for the five per centum of the net earnings provided for by the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes" approved July first, eighteen hundred and sixty-two, or by any other act or acts in relation to the companies therein named, or any other such company or companies, and in case either of said railroad companies shall neglect or refuse to pay the same within sixty

Secretary of the Treasury to demand five per cent. of net earnings.

Attorney-Gen-
eral to bring suit.

days after demand therefor made upon the treasurer of such railroad company, the Secretary of the Treasury shall certify that fact to the Attorney-General, who shall thereupon institute the necessary suits and proceedings to collect and otherwise obtain redress in respect of the same in the proper circuit courts of the United States, and prosecute the same, with all convenient dispatch to a final determination.

ACT OF MARCH 3, 1875.

18 Stat., 453. AN ACT making appropriations for the support of the Army for the fiscal year ending June thirtieth, eighteen hundred and seventy-six, and for other purposes.

No payment for
transportation of
troops, &c., to
railroads receiv-
ing land grants,
&c.

No allowance
for transporta-
tion of officers on
duty.

Right of com-
panies to sue in
Court of Claims.

Statute of limi-
tations.

Appeal.
Proviso.

Provided, That no money shall hereafter be paid to any railroad company for the transportation of any property or troops of the United States over any railroad which, in whole or in part, was constructed by the aid of a grant of public land, on the condition that such railroad should be a public highway for the use of the Government of the United States, free from toll or other charge, or upon any other conditions for the use of such road, for such transportation; nor shall any allowance be made for the transportation of officers of the Army over any such road when on duty and under orders as military officers of the United States. But nothing herein contained shall be construed as preventing any such railroad from bringing a suit in the Court of Claims for the charges for such transportation, and recovering for the same if found entitled thereto, by virtue of the laws in force prior to the passage of this act; provided that the claim for such charges shall not have been barred by the statute of limitations at the time of bringing the suit, and either party shall have the right of appeal to the Supreme Court of the United States: *And provided further*, That the foregoing provision shall not apply for the current fiscal year, nor thereafter, to roads where the sole condition of transportation is that the company shall not charge the Government higher rate than they do individuals for like transportation, and when the Quartermaster-General shall be satisfied that this condition has been faithfully complied with.

20 Stat., 44.

ACT OF APRIL 30, 1878.

AN ACT to provide for deficiencies in the appropriations for the service of the government for the fiscal year ending June thirtieth, eighteen hundred and seventy-eight; and for prior years, for subsistence of the Army, and for other purposes.

* * * * *

WAR DEPARTMENT.

Transportation
of Army.

TRANSPORTATION.—To enable the Secretary of War to pay for transportation of the Army, including baggage of the troops when moving either by land or water; of clothing and camp and garrison equipage from the depots of Philadelphia and Jeffersonville to the several posts and Army depots, and from those depots to the troops in the field; of horse-equipments and of subsistence stores from the places of purchase and from the places of delivery, under contract, to such places as the circumstances of the service may have required them to be sent; of ordnance, ordnance stores, and small-arms from the founderies and armories to the arsenals, fortifications, frontier posts, and Army depots; freights, wharfage, tolls, and ferriages; the purchase and hire of horses, mules, oxen, and harness, and the purchase and repair of wagons, carts, and drays, and of ships, and other sea-going vessels and boats required for the transportation of supplies and for garrison purposes; for drayage and cartage at the several posts; hire of teamsters; transportation of funds for the pay and other disbursing departments; the expense of sailing public transports on the various rivers, the Gulf of Mexico, and the Atlantic and Pacific; for procuring water at such posts as, from their situation, require it to be brought from a distance; and for clearing roads, and for removing obstructions from roads, harbors, and rivers, to the extent which has been required for the actual operations of the troops in the field, one million two hundred thousand dollars, be-

ing a deficiency for the fiscal year ending June thirtieth, eighteen hundred and seventy-seven: *Provided, however,* That no part of this sum shall be paid to any railroad company or to its assigns on account of freights or transportation over their respective roads unless there be an excess due such company after charging the amount of payments made by the United States for interest upon bonds of the United States issued to any such company; but the same shall be paid to the Secretary of the Treasury, to be by him withheld, as directed by existing law.

Railway companies.
Interest on bonds to be deducted.

ACT OF MAY 7, 1878.

AN ACT to alter and amend the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and for other purposes," approved July first, eighteen hundred and sixty-two, and also to alter and amend the act of Congress approved July second, eighteen hundred and sixty-four, in amendment of said first-named act. 20 Stat., 56.

Whereas, on the first day of July, anno Domini eighteen hundred and sixty-two, Congress passed an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes; and Preamble.

Whereas afterward, on the second day of July, anno Domini eighteen hundred and sixty-four, Congress passed an act in amendment of said first-mentioned act; and

Whereas, the Union Pacific Railroad Company, named in said acts, and under the authority thereof, undertook to construct a railway, after the passage thereof, over some part of the line mentioned in said acts; and

Whereas, under the authority of the said two acts, the Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, undertook to construct a railway, after the passage of said acts, over some part of the line mentioned in said acts; and

Whereas the United States, upon demand of said Central Pacific Railroad Company, have heretofore issued, by way of loan, and as provided in said acts, to and for the benefit of said company, in aid of the purposes named in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, to the amount of twenty-five million eight hundred and eighty-five thousand one hundred and twenty dollars, which said bonds have been sold in the market or otherwise disposed of by said company; and

Whereas the said Central Pacific Company has issued and disposed of an amount of its own bonds equal to the amount so issued by the United States, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas, after the passage of said acts, the Western Pacific Railroad Company, a corporation then existing under the laws of California, did, under the authority of Congress, become the assignee of the rights, duties, and obligations of the said Central Pacific Railroad Company, as provided in the act of Congress passed on the third of March, anno Domini eighteen hundred and sixty-five, and did, under the authority of the said act and of the acts aforesaid, construct a railroad from the city of San José to the city of Sacramento, in California, and did demand and receive from the United States the sum of one million nine hundred and seventy thousand five hundred and sixty dollars of the bonds of the United States, of the description before mentioned as issued to the Central Pacific Company, and in the same manner and under the provisions of said acts; and upon and in respect of the bonds so issued to both said companies, the United States have paid interest to the sum of more than thirteen and a half million dollars, which has not been reimbursed; and

Whereas said Western Pacific Railroad Company has issued and disposed of an amount of its own bonds equal to the amount so issued by

the United States to it, and secured the same by mortgage, which are, if lawfully issued and disposed of, a prior and paramount lien to that of the United States, as stated and secured thereby; and

Whereas said Western Pacific Railroad Company has since become merged in, and consolidated with, said Central Pacific Railroad Company, under the name of the Central Pacific Railroad Company, whereby the said Central Pacific Railroad Company has become liable to all the burdens, duties, and obligations before resting upon said Western Pacific Railroad Company; and divers other railroad companies have been merged in and consolidated with said Central Pacific Railroad Company; and

Whereas the United States, upon the demand of the said Union Pacific Railroad Company, have heretofore issued by way of loan to it and as provided in said acts, the bonds of the United States, payable in thirty years from the date thereof, with interest at six per centum per annum, payable half-yearly, the principal sums of which amount to twenty-seven million two hundred and thirty-six thousand five hundred and twelve dollars; on which the United States have paid over ten million dollars interest over and above all reimbursements; which said bonds have been sold in the market or otherwise disposed of by said corporation; and

Whereas said corporation has issued and disposed of an amount of its own bonds equal to the amounts so issued to it by the United States as aforesaid, and secured the same by mortgage, and which are, if lawfully issued and disposed of, a prior and paramount lien, in the respect mentioned in said acts, to that of the United States, as stated, and secured thereby; and

Whereas the total liabilities (exclusive of interest to accrue) to all creditors, including the United States, of the said Central Pacific Company, amount in the aggregate to more than ninety-six million dollars, and those of the said Union Pacific Railroad Company to more than eighty-eight million dollars; and

Whereas the United States, in view of the indebtedness and operations of said several railroad companies respectively, and of the disposition of their respective incomes, are not and cannot, without further legislation, be secure in their interests in and concerning said respective railroads and corporations, either as mentioned in said acts or otherwise; and

Whereas a due regard to the rights of said several companies respectively, as mentioned in said act of eighteen hundred and sixty-two, as well as just security to the United States in the premises, and in respect of all the matters set forth in said act, require that the said act of eighteen hundred and sixty-two be altered and amended as hereinafter enacted; and

Whereas, by reason of the premises also, as well as for other causes of public good and justice, the powers provided and reserved in said act of eighteen hundred and sixty-four for the amendment and alteration thereof ought also to be exercised as hereinafter enacted: Therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the net earnings mentioned in said act of eighteen hundred and sixty-two, of said railroad companies respectively, shall be ascertained by deducting from the gross amount of their earnings, respectively, the necessary expenses actually paid within the year in operating the same and keeping the same in a state of repair, and also the sum paid by them respectively within the year in discharge of interest on their first-mortgage bonds, whose lien has priority over the lien of the United States, and excluding from consideration all sums owing or paid by said companies respectively for interest upon any other portion of their indebtedness; and the foregoing provision shall be deemed and taken as an amendment of said act of eighteen hundred and sixty-four, as well as of said act of eighteen hundred and sixty-two. This section shall take effect on the thirtieth day of June next, and be applicable to all computations of net earnings thereafter; but it shall not affect any right of the United States or of either of said railroad companies existing prior thereto.

Net earnings. How to be ascertained.

Date of effect.

Compensation retained; how applied.

SEC. 2. That the whole amount of compensation which may, from time to time, be due to said several railroad companies respectively for services rendered for the Government shall be retained by the United States, one-half thereof to be presently applied to the liquidation of

the interest paid and to be paid by the United States upon the bonds so issued by it as aforesaid, to each of said corporations severally, and the other half thereof to be turned into the sinking fund hereinafter provided, for the uses therein mentioned.

SEC. 3. That there shall be established in the Treasury of the United States a sinking-fund, which shall be invested by the Secretary of the Treasury in bonds of the United States; and the semi-annual income thereof shall be in like manner from time to time invested, and the same shall accumulate and be disposed of as hereinafter mentioned. And in making such investments the Secretary shall prefer the five per centum bonds of the United States, unless for good reasons appearing to him, and which he shall report to Congress, he shall at any time deem it advisable to invest in other bonds of the United States. All the bonds belonging to said fund shall, as fast as they shall be obtained, be so stamped as to show that they belong to said fund, and that they are not good in the hands of other holders than the Secretary of the Treasury until they shall have been indorsed by him, and publicly disposed of pursuant to this act.

Sinking-fund.
(Amended by
section 5 of act of
March 3, 1887.)

SEC. 4. That there shall be carried to the credit of the said fund on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the Government by said Central Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking-fund, the sum of one million two hundred thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding. That there shall be carried to the credit of the said fund, on the first day of February in each year, the one-half of the compensation for services hereinbefore named, rendered for the Government by said Union Pacific Railroad Company, not applied in liquidation of interest; and, in addition thereto, the said company shall, on said day in each year, pay into the Treasury, to the credit of said sinking-fund, the sum of eight hundred and fifty-thousand dollars, or so much thereof as shall be necessary to make the five per centum of the net earnings of its said road payable to the United States under said act of eighteen hundred and sixty-two, and the whole sum earned by it as compensation for services rendered for the United States, together with the sum by this section required to be paid, amount in the aggregate to twenty-five per centum of the whole net earnings of said railroad company, ascertained and defined as hereinbefore provided, for the year ending on the thirty-first day of December next preceding.

Credits and
payments to
sinking fund.

SEC. 5. That whenever it shall made satisfactorily to appear to the Secretary of the Treasury, by either of said companies, that seventy-five per centum of its net earnings as hereinbefore defined, for any current year are or were insufficient to pay the interest for such year upon the obligation of such company, in respect of which obligations there may exist a lien paramount to that of the United States, and that such interest has been paid out of such net earnings, said Secretary is hereby authorized, and it is made his duty, to remit for such current year so much of the twenty-five per centum of net earnings required to be paid into the sinking-fund, as aforesaid, as may have been thus applied and used in the payment of interest as aforesaid.

SEC. 6. That no dividend shall be voted, made, or paid for or to any stockholder or stockholders in either of said companies respectively at any time when the said company shall be in default in respect of the payment either of the sums required as aforesaid to be paid into said sinking-fund, or in respect of the payment of the said five per centum of the net earnings, or in respect of interest upon any debt the lien of which, or of the debt on which it may accrue, is paramount to that of the United States; and any officer or person who shall vote, declare, make, or pay, and any stockholder of any of said companies who shall receive any such dividend contrary to the provisions of this act, shall be liable to the United States for the amount thereof, which, when re-

Dividends pro-
hibited, when.

Penalties.

covered, shall be paid into said sinking-fund. And every such officer, person, or stockholder who shall knowingly vote, declare, make, or pay any such dividend, contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding ten thousand dollars, and by imprisonment not exceeding one year.

SEC. 7. That the said sinking-fund so established and accum[ul]ated shall at the maturity of such bonds so respectively issued by the United States, be applied to the payment and satisfaction thereof, according to the interest and proportion of each of said companies in said fund, and of all interest paid by the United States thereon, and not reimbursed, subject to the provisions of the next section.

Application of sinking fund.

SEC. 8. That said sinking-fund so established and accumulated shall, according to the interest and proportion of said companies respectively therein, be held for the protection, security, and benefit of the lawful and just holders of any mortgage or lien debts of such companies respectively, lawfully paramount to the rights of the United States, and for the claims of other creditors, if any, lawfully chargeable upon the funds so required to be paid into said sinking-fund, according to their respective lawful priorities, as well as for the United States, according to the principles of equity, to the end that all persons having any claim upon said sinking-fund may be entitled thereto in due order; but the provisions of this section shall not operate or be held to impair any existing legal right, except in the manner in this act provided, of any mortgage, lien, or other creditor of any of said companies respectively, nor to excuse any of said companies respectively from the duty of discharging, out of other funds, its debts to any creditor except the United States.

United States lien on all property of the R. R. companies.

SEC. 9. That all sums due to the United States from any of said companies respectively, whether payable presently or not, and all sums required to be paid to the United States or into the Treasury, or into said sinking-fund under this act, or under the acts hereinbefore referred to, or otherwise, are hereby declared to be a lien upon all the property, estate, rights, and franchises of every description granted or conveyed by the United States to any of said companies respectively or jointly, and also upon all the estate and property, real, personal, and mixed, assets, and income of the said several railroad companies respectively, from whatever source derived, subject to any lawfully prior and paramount mortgage, lien, or claim thereon. But this section shall not be construed to prevent said companies respectively from using and disposing of any of their property or assets in the ordinary, proper, and lawful course of their current business, in good faith and for valuable consideration.

Proceedings against the companies.

SEC. 10. That it is hereby made the duty of the Attorney-General of the United States to enforce, by proper proceedings against the several railroad companies respectively or jointly, or against either of them, and others, all the rights of the United States under this act and under the acts hereinbefore mentioned, and under any other act of Congress or right of the United States; and in any suit or proceedings already commenced, or that may be hereafter commenced, against any of said companies, either alone or with other parties, in respect of matters arising under this act, or under the acts or rights hereinbefore mentioned or referred to, it shall be the duty of the court to determine the very right of the matter without regard to matters of form, joinder of parties, multifariousness, or other matters not affecting the substantial rights and duties arising out of the matters and acts hereinbefore stated and referred to.

Forfeiture.

SEC. 11. That if either of said railroad companies shall fail to perform all and singular the requirements of this act and of the acts hereinbefore mentioned, and of any other act relating to said company, to be by it performed, for the period of six months next after such performance may be due, such failure shall operate as a forfeiture of all the rights, privileges, grants, and franchises derived or obtained by it from the United States; and it shall be the duty of the Attorney-General to cause such forfeiture to be judicially enforced.

Right of Congress to further amend.

SEC. 12. That nothing in this act shall be construed or taken in any wise to affect or impair the right of Congress at any time hereafter further to alter, amend, or repeal the said acts hereinbefore mentioned; and this act shall be subject to alteration, amendment, or repeal, as in the opinion of Congress, justice or the public welfare may require

And nothing herein contained shall be held to deny, exclude, or impair any right or remedy in the premises now existing in favor of the United States.

SEC. 13. That each and every of the provisions in this act contained shall severally and respectively be deemed, taken, and held as in alteration and amendment of said act of eighteen hundred and sixty-two and of said act of eighteen hundred and sixty-four respectively, and of both said acts.

ACT OF JUNE 19, 1878.

AN ACT to create an Auditor of Railroad Accounts, and for other purposes.* 20 Stat., 169.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section twenty of the act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, anno Domini eighteen hundred and sixty-two, and the act entitled "An act relative to filing reports of railroad companies" approved June twenty-fifth, anno Domini eighteen hundred and sixty-eight, be, and the same are hereby, repealed. Repeal of prior laws.

SEC. 2. That the office of Auditor of Railroad Accounts is hereby established as a bureau of the Interior Department. The said Auditor shall be appointed by the President of the United States, by and with the advice and consent of the Senate. The annual salary of the said Auditor shall be, and is hereby, fixed at the sum of five thousand dollars. To assist the said Auditor to perform the duties of said office, the Secretary of the Interior shall appoint one book-keeper at an annual salary of two thousand four hundred dollars, one assistant bookkeeper at an annual salary of two thousand dollars, one clerk at an annual salary of one thousand four hundred dollars, and one copyist at an annual salary of nine hundred dollars. Actual and necessary traveling and other expenses incurred in visiting the offices of the railroad companies hereinafter described, and for which vouchers shall be rendered, are hereby allowed, not to exceed the sum of two thousand dollars per annum; and it is hereby specially provided that each of said railroad companies shall furnish transportation over its own road, without expense to the United States, for the said Auditor, or any person acting under his direction. Incidental expenses for books, stationery, and other material necessary for the use of said bureau are hereby allowed, not to exceed the sum of seven hundred dollars per annum. And the sum of twelve thousand dollars is hereby appropriated for the uses and purposes of this act for the fiscal year ending June thirtieth, anno Domini, eighteen hundred and seventy-nine. Organization of bureau.

SEC. 3. That the duties of the said Auditor under and subject to the direction of the Secretary of the Interior shall be, to prescribe a system of reports to be rendered to him by the railroad companies whose roads are in whole or in part west, north, or south of the Missouri River, and to which the United States have granted any loan or credit or subsidy in bonds or lands; to examine the books and accounts of each of said railroad companies once in each fiscal year, and at such other times as may be deemed by him necessary to determine the correctness of any report received from them; to assist the Government directors of any of said railway companies in all matters which come under their cognizance whenever they may officially request such assistance; to see that the laws relating to said companies are enforced; to furnish such information to the several departments of the Government in regard to tariffs for freight and passengers and in regard to the accounts of said railroad companies as may be by them required, or, in the absence of any request therefor, as he may deem expedient for the interest of the Government; and to make an annual report to the Secretary of the Interior, on the first day of November, on the condition of each of said railroad companies, their road, accounts, and affairs, for the fiscal year ending June thirtieth immediately preceding. Duties of Auditor.

SEC. 4. That each and every railroad company aforesaid which has received from the United States any bonds of the said United States, R. R. companies to report, &c.

*Title changed to Commissioner of Railroads. Act March 3, 1881 (21 Stat., 409).

issued by way of loan to aid in constructing or furnishing its road, or which has received from the United States any lands, granted to it for a similar purpose, shall make to the said Auditor any and all such reports as he may require from time to time and shall submit its books and records to the inspection of said Auditor or any person acting in his place and stead, at any time that the said Auditor may request, in the office where said books and records are usually kept; and the said Auditor, or his authorized representative, shall make such transcripts from the said books and records as he may desire.

Penalty for neglect or refusal. SEC. 5. That if any railroad company aforesaid shall neglect or refuse to make such reports as may be called for, or refuse to submit its books and records to inspection, as provided in section four of this act, such neglect or refusal shall operate as a forfeiture, in each case of such neglect or refusal, of a sum not less than one thousand nor more than five thousand dollars, to be recovered by the Attorney-General of the United States, in the name and for the use and benefit of the United States; and it shall be the duty of the Secretary of the Interior, in all such cases of neglect or refusal as aforesaid, to inform the Attorney-General of the facts, to the end that such forfeiture or forfeitures may be judicially enforced.

Application of act. SEC. 6. This act shall apply to any and all persons or corporations into whose hands either of said railroads may lawfully come, as well as to the original companies.

Date of effect. SEC. 7. This act shall take effect on and after the first day of July, anno Domini eighteen hundred and seventy-eight.

ACT OF MARCH 3, 1879.

20 Stat., 420. AN ACT making appropriations to supply deficiencies in the appropriations for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine and for prior years, and for those heretofore treated as permanent, and for other purposes.

* * * * *

POST-OFFICE DEPARTMENT.

* * * * *

Settlement of accounts of Pacific Railways. That for the proper adjustment of the accounts of the Union Pacific, Central Pacific, Kansas Pacific, Western Pacific, and Sioux City and Pacific Railroad Companies, respectively, for services which have been or may hereafter be performed for the Government for transportation of the Army and transportation of the mails, the Secretary of the Treasury is hereby authorized to make such entries upon the books of the Department as will carry to the credit of said companies the amount so earned or to be earned by them during each fiscal year and withheld under the provisions of section fifty-two hundred and sixty of the Revised Statutes and of the act of Congress approved May seventh, eighteen hundred and seventy-eight: *Provided*, That this shall not authorize the expenditure of any money from the Treasury nor change the method now provided by law for the auditing of such claims against the Government: *Provided further*, That this paragraph shall not be so construed as to be a disposition of any moneys due to or to become due to or from said companies respectively, or to, in any way, affect their rights or duties or the rights of the United States, under existing laws, it being only intended hereby to enable the proper accounting officers to state on the books of the Treasury the accounts between the the Government and said companies respectively.

R. S., 5260.
1878. ch. 75,
nte, 44.

Proviso.
No change of rights, &c.

* * * * *

ACT OF MARCH 1, 1881.

21 Stat., 375. AN ACT making appropriations for the service of the Post-Office Department for the fiscal year ending June 30, 1882, and for other purposes.

* * * * *

Railway post-office car service. For railway post-office car service, one million four hundred and twenty-six thousand dollars. And hereafter when any railroad company fail or refuse to provide railway post-office cars when required by the Post-Office Department, or shall fail or refuse to provide suitable safety-heaters and safety-lamps therefor, with such number of

Penalty for not providing railway post-office cars.

saws and axes to each car for use in case of accident as may be required by the Post-Office Department, said company shall have its pay reduced ten per centum on the rates fixed in section four thousand and two of the Revised Statutes, as amended by act of July twelfth, eighteen hundred and seventy-six, entitled "An act making appropriations for the service of the Post-Office Department for the fiscal year ending June thirtieth, eighteen hundred and seventy-seven, and for other purposes," and as further amended by the act of June seventeen, eighteen hundred and seventy-eight, entitled "An act making appropriations for the service of the Post-Office Department for the fiscal year ending June thirtieth, eighteen hundred and seventy-nine, and for other purposes." R. S., 4002, 1876, ch. 179; 19 Stat., 78.

ACT OF MARCH 3, 1881.

AN ACT making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1882, and for other purposes. 21 Stat., 409.

* * * * *

OFFICE OF AUDITOR OF RAILROAD ACCOUNTS.—For Auditor, who shall hereafter be styled Commissioner of Railroads, four thousand five hundred dollars, &c. • • • • •

ACT OF JUNE 30, 1882.

AN ACT making appropriations for the support of the Army for the fiscal year ending June 30, 1883, and for other purposes. 22 Stat., 120.

For the payment for Army transportation lawfully due such land-grant railroads as have not received aid in Government bonds, to be adjusted by the proper accounting officers in accordance with the decisions of the Supreme Court in cases decided under such land-grant acts, but in no case shall more than fifty per centum of the full amount of the service be paid, one hundred and twenty-five thousand dollars: *Provided*, That such compensation shall be computed upon the basis of the tariff rates for like transportation performed for the public at large, and shall be accepted as in full for all demands for said services: *And provided further*, That any such land-grant roads as shall file with the Secretary of the Treasury their written acceptance of this provision shall hereafter be paid for like service as herein provided; and all accounts of such railroads for services heretofore rendered shall be audited and paid as herein provided upon application of such roads and their acceptance of such sum in full of all claims for such services; and all laws inconsistent herewith are hereby repealed. Payment to land-grant railroads for transportation.

ACT OF MARCH 3, 1887.

AN ACT authorizing an investigation of the books, accounts, and methods of railroads which have received aid from the United States, and for other purposes. 24 Stat., 488.

* * * * *

SEC. 5. That the sinking-funds which are or may be held in the Treasury for the security of the indebtedness of either or all of said railroad companies may, in addition to the investments now authorized by law, be invested in any bonds of the United States heretofore issued for the benefit of either or all of said companies, or in any of the first-mortgage bonds of either of said companies which have been issued under the authority of any law of the United States and secured by mortgages of their roads and franchises, which by any law of the United States have been made prior and paramount to the mortgage, lien, or other security of the United States in respect of its advances to either of said companies as provided by law. Investment of sinking funds.

LAWS RELATING TO THE NORTHERN PACIFIC RAILROAD.

ACT OF JULY 2, 1864.

13 Stat., 365. AN ACT granting lands to aid in the construction of a railroad and telegraph line from Lake Superior to Puget's Sound, on the Pacific coast, by the northern route.

Northern Pacific Railroad Company incorporated.

Name.

Empowered to lay out, construct, and enjoy a continuous railroad and telegraph line.

From Lake Superior, on a line north of the 45th degree of latitude, to Puget's Sound.

Right to construct a branch to Portland, Oreg.

Capital stock \$100,000,000.

Board of Commissioners appointed.

First meeting of commissioners to be held in Boston, Mass.

Officers to be chosen from the board of commissioners.

Books of subscriptions to be opened in such cities as the board may determine.

First meeting of subscribers to capital stock.

Thirteen directors to be elected by stockholders.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Richard D. Rice, John A. Poore, Samuel P. Strickland, Samuel C. Fessenden, * * * and all such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic, in deed and in law, by the name, style, and title of the "Northern Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal. And said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, namely, beginning at a point on Lake Superior, in the State of Minnesota or Wisconsin; thence westerly by the most eligible railroad route, as shall be determined by said company, within the territory of the United States on a line north of the forty-fifth degree of latitude to some point on Puget's Sound, with a branch, via the valley of the Columbia River, to a point at or near Portland, in the State of Oregon, leaving the main trunk line at the most suitable place, not more than three hundred miles from its western terminus; and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons herein before named are hereby appointed commissioners, and shall be called the Board of Commissioners of the "Northern Pacific Railroad Company," and fifteen shall constitute a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Melodion Hall, in the city of Boston, at such time as any five commissioners herein named from Massachusetts shall appoint, not more than three months after the passage of this act, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Philadelphia, Cincinnati, Milwaukee, and Chicago, once a week at least four weeks previous to the day of meeting. Said board shall organize by the choice from its number of a president, vice-president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of said board shall in like manner call all other meetings naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times, and in such principal cities or other places in the United States, as they, or a quorum of them, shall determine, within six months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions and to receipt therefor. So soon as twenty thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened, at least fifteen days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by lawful proxy, then and there shall elect by ballot thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commission-

ers, and, in case of their absence or inability, any two of the officers of said board, shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, the treasurer, and secretary, shall then deliver over to said directors all the properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them, shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers (when they are to be chosen) and for the transaction of business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Commissioners to deliver to directors all properties, &c.

Annual meetings to be held as prescribed in by-laws.

SEC. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to said "Northern Pacific Railroad Company," its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power, and authority is hereby given to said corporation to take from the public lands, adjacent to the line of said road, material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary ground for station building, workshops, depots, machine-shops, switches, side tracks, turn-tables, and water-stations; and the right of way shall be exempt from taxation within the Territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the said Indians, the Indian titles to all lands falling under the operation of this act, and acquired in the donation to the [road] named in this bill.

Grant of right of way.

Authority to take from adjacent lands material for construction.

Right of way 200 feet in width on each side of said railroad.

Right of way exempt from taxation.

Indian titles to be extinguished by the United States.

Grant of land.

SEC. 3. *And be it further enacted*, That there be, and hereby is, granted to the "Northern Pacific Railroad Company," its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption, or other claims or rights, at the time the line of said road is definitely fixed, and plat thereof filed in the office of the Commissioner of the General Land Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections: *Provided*, That if said route shall be found upon the line of any other railroad route to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: *Provided further*, That the railroad company receiving the previous grant of land may assign their interest to said "Northern Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first section of this act: *Provided further*, That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands, in odd-numbered sections, nearest to the line of said road may be selected as above provided: *And provided further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal: *And provided further*, That no money shall be drawn from the Treasury of the United States to aid in the construction of the said "Northern Pacific Railroad."

Forty sections per mile in the Territories.

Twenty sections per mile in the States.

Other lands in lieu of those reserved, &c.

Land limits.

If route is upon the line of any other aided road former grant shall be deducted.

Road having previous grant may assign.

"Mineral" lands not granted.

Agricultural lands may be selected in lieu of mineral lands.

"Mineral" does not include iron or coal.

SEC. 4. *And be it further enacted*, That whenever said "Northern Pacific Railroad Company" shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated the President of the United States shall appoint three commissioners to examine the same, and if it shall appear that twenty-

The President to appoint three commissioners to examine road.

five consecutive miles of said road and telegraph line have been completed in a good, substantial, and workmanlike manner, as in all other respects required in this act, the commissioners shall so report to the President of the United States, and patents of lands as aforesaid shall be issued to said company, confirming to said company the right and title to said lands, situated opposite to, and conterminous with, said completed section of said road; and, from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid: *Provided*, That no more than ten sections of land per mile, as said road shall be completed, shall be conveyed to said company for all that part of said railroad lying east of the western boundary of the State of Minnesota, until the whole of said railroad shall be finished and in good running order, as a first-class railroad, from the place of beginning on Lake Superior to the western boundary of Minnesota: *Provided also*, That lands shall not be granted under the provisions of this act on account of any railroad, or part thereof, constructed at the date of the passage of this act.

Commissioners to report to the President. SEC. 5. *And be it further enacted*, That said Northern Pacific Railroad shall be constructed in a substantial and workmanlike manner, with all the necessary draws, culverts, bridges, viaducts, crossings, turnouts, stations, and watering places, and all other appurtenances, including furnitnre, and rolling stock, equal in all respects to railroads of the first class, when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line, of the most substantial and approved description, to be operated along the entire line: *Provided*, That the said company shall not charge the Government higher rates than they do individuals for like transportation and telegraphic service. And it shall be the duty of the Northern Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature of any Territory or State in which the same may be situated, to form running connections with it, on fair and equitable terms.

Proviso as to lands in Minnesota. RAILS OF AMERICAN IRON. (See res. 16 Stat., 378.) Gauge to be uniform. Telegraph line. Condition as to charges for Government transportation and telegraphic service. Other roads may form running connections on equitable terms.

Proviso as to road previously built. SEC. 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road, after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale, or entry, or pre-emption before or after they are surveyed, except by said company, as provided in this act; but the provisions of the act of September, eighteen hundred and forty-one, granting pre-emption rights, and the acts amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same is hereby, extended to all other lands on the line of said road, when surveyed, excepting those hereby granted to said company. And the reserved alternate sections shall not be sold by the Government at a price less than two dollars and fifty cents per acre, when offered for sale.

Road to be constructed as a "first-class" railroad. SEC. 7. *And be it further enacted*, That the said "Northern Pacific Railroad Company" be, and is hereby, authorized and empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width two hundred feet on each side of the line of its railroad, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, encumber its road-bed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company cannot agree as to the value of the premises taken, or to be taken for the use of said road, the value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed, upon application by either party, to any court of record in

Government lands not to be sold for less than \$2.50 per acre.

Authorizes company to take any lands necessary for construction of its road.

200 feet on each side.

Lands for depots, etc.

Damages to be determined by commissions.

any of the Territories in which the lands or premises to be taken lie; and said commissions, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purpose aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or sureties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict, increasing or diminishing, as the case may be, the award of the commissioners, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, of a sum equal to that finally awarded, shall be held to vest in said company the title of said land, and of the right to use and occupy the same for the construction, maintenance, and operation of said road. And in case any of the lands to be taken, as aforesaid, shall be held by any infant, femme covert, non compos, insane person, or persons residing without the Territory within which the lands to be taken lie, or person subjected to any legal disability, the court may appoint a guardian for any party under any disqualification, to appear in proper person, who shall give bonds, with sufficient surety or sureties, for the proper and faithful execution of his trust, and who may represent in court the person disqualified, as aforesaid, from appearing, when the same proceedings shall be had in reference to the appraisement of the premises to be taken for the use of said company, and with the same effect as has been already described; and the title of the company to the lands taken by virtue of this act shall not be affected or impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case any party shall have a right or claim to any land for a term of years, or any interest therein, in possession, reversion, or remainder, the value of any such estate, less than a fee simple, shall be estimated and determined in the manner hereinbefore set forth. And in case it shall be necessary for the company to enter upon any lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purposes of said railroad, and may institute proceedings, in manner described, for the purpose of ascertaining the value of, and acquiring title to, the same; but the judge of the court hearing said suit shall determine the kind of notice to be served on such owner or owners, and he may in its discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claims to damages against said company shall be barred.

Procedure.

What proceedings in cases of lands held by any infant or person subject to any legal disability.

Other proceedings.

Proceedings when lands are unoccupied.

Claims barred if not made within six years.

SEC. 8. *And be it further enacted*, That each and every grant, right, and privilege herein are so made and given to, and accepted by said Northern Pacific Railroad Company, upon and subject to the following conditions, namely: that the said company shall commence the work on said road within two years from the approval of this act by the President, and shall complete not less than fifty miles per year after the second year, and shall construct, equip, furnish, and complete the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-six.

Grants made subject to certain conditions.

Whole road to be completed by July 4, 1876.

Joint res. May 7, 1866, time extended two years; joint res. July 1, 1868, sec. 8; amended.

SEC. 9. *And be it further enacted*, That the United States make the several conditioned grants herein, and that the said Northern Pacific Railroad Company accept the same, upon the further condition that if the said company make any breach of the conditions hereof, and allow the same to continue for upwards of one year, then, in such case, at any time hereafter, the United States, by its Congress, may do any and all acts and things which may be needful and necessary to insure a speedy completion of the said road.

Congress may do anything necessary to insure a speedy completion of the road.

SEC. 10. *And be it further enacted*, That all people of the United States shall have the right to subscribe to the stock of the Northern Pacific

All people of the United States

may subscribe to the stock, until whole amount is taken up.

No bonds to be issued without consent of Congress.

To be a post-route and military road.

Congress may restrict charges for Government transportation.

Company to accept terms, conditions, &c., within two years.

Annual report to be verified by affidavits of president and six directors of company.

Election of president and vice-president from board of directors.

Treasurer and secretary.

Term of office of president, vice-president, and directors not to exceed three years.

Directors empowered to make by-laws, rules, and regulations.

Directors may fill vacancies in board.

Directors empowered to appoint engineers, agents, &c.

Directors to require payment of ten per centum cash assessment, and balance of subscription when needed.

Railroad Company until the whole capital named in this act of incorporation is taken up, by complying with the terms of subscription; and no mortgage or construction bonds shall ever be issued by said company on said road, or mortgage, or lien made in any way, except by the consent of the Congress of the United States.

SEC. 11. *And be it further enacted*, That said Northern Pacific Railroad, or any part thereof, shall be a post-route and a military road, subject to the use of the United States, for postal, military, naval, and all other Government service, and also subject to such regulations as Congress may impose restricting the charges for such Government transportation.

SEC. 12. *And be it further enacted*, That the acceptance of the terms, conditions, and impositions of this act by the said Northern Pacific Railroad Company shall be signified in writing under the corporate seal of said company, duly executed pursuant to the directions of its board of directors first had and obtained, which acceptance shall be made within two years after the passage of this act, and not afterwards, and shall be served on the President of the United States.

SEC. 13. *And be it further enacted*, That the directors of said company shall make an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, and they shall, from time to time, fix, determine, and regulate the fares, tolls, and charges to be received and paid for transportation of persons and property on said road, or any part thereof.

SEC. 14. *And be it further enacted*, That the directors chosen in pursuance of the first section of this act shall, as soon as may be after their election, elect from their own number a president and vice-president; and said board of directors shall, from time to time, and as soon as may be after their election, choose a treasurer and secretary, who shall hold their offices at the will and pleasure of the board of directors. The treasurer and secretary shall give such bonds, with such security as the said board from time to time may require. The secretary shall, before entering upon his duty, be sworn to the faithful discharge thereof, and said oath shall be made a matter of record upon the books of said corporation. No person shall be a director of said company unless he shall be a stockholder, and qualified to vote for directors at the election at which he shall be chosen.

SEC. 15. *And be it further enacted*, That the president, vice-president, and directors shall hold their offices for the period indicated in the by-laws of said company, not exceeding three years, respectively, and until others are chosen in their place, and qualified. In case it shall so happen that an election of directors shall not be made on any day appointed by the by-laws of said company, the corporation shall not for that excuse be deemed to be dissolved, but such election may be holden on any day which shall be appointed by the directors. The directors, of whom seven, including the president, shall be a quorum for the transaction of business, shall have full power to make and prescribe such by-laws, rules, and regulations as they shall deem needful and proper touching the disposition and management of the stock, property, estate, and effects of the company, the transfer of shares, the duties and conduct of their officers and servants touching the election and meeting of the directors, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors may have full power to fill any vacancy or vacancies that may occur from any cause or causes from time to time in their said board. And the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of the company, and to do all acts and things touching the location and construction of said road.

SEC. 16. *And be it further enacted*, That it shall be lawful for the directors of said company to require payment of the sum of ten per centum cash assessment upon all subscriptions received of all subscribers, and the balance thereof at such times and in such proportions and on such conditions as they shall deem to be necessary to complete the said road and telegraph line within the time in this act prescribed. Sixty days' previous notice shall be given of the payments required, and of the time and place of payment, by publishing a notice once a week in one daily newspaper in each of the cities of Boston, New York, Philadelphia, and Chicago; and in case any stockholder shall neglect or refuse to pay, in pursuance of such notice, the stock held by such person

shall be forfeited absolutely to the use of the company, and also any payment or payments that shall have been made on account thereof, subject to the condition that the board of directors may allow the redemption on such terms as they may prescribe. Forfeited stock may be redeemed on terms prescribed by directors.

SEC. 17. *And be it further enacted*, That the said company is authorized to accept to its own use any grant, donation, loan, power, franchise, aid, or assistance which may be granted to, or conferred upon, said company by the Congress of the United States, by the legislature of any State, or by any corporation, person, or persons; and said corporation is authorized to hold and enjoy any such grant, donation, loan, power, franchise, aid, or assistance, to its own use for the purpose aforesaid. Company authorized to accept other grants, franchises, &c.

SEC. 18. *And be it further enacted*, That said Northern Pacific Railroad Company shall obtain the consent of the legislature of any State through which any portion of said railroad line may pass previous to commencing the construction thereof; but said company may have the right to put on engineers and survey the route before obtaining the consent of the legislature. Consent of State legislatures to be obtained.

SEC. 19. *And be it further enacted*, That unless said Northern Pacific Railroad Company shall obtain *bona fide* subscriptions to the stock of said company to the amount of two millions of dollars, with ten per centum paid within two years after the passage and approval of this act, it shall be null and void. Act to be null and void, unless two millions of dollars of stock are subscribed for within two years.

SEC. 20. *And be it further enacted*, That the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the Government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other purposes, Congress may, at any time, having due regard for the rights of said Northern Pacific Railroad Company, add to, alter, amend, or repeal this act. Congress may add to, alter, amend, or repeal this act, having due regard for the rights of the company.

JOINT RESOLUTION OF MAY 7, 1866.

No. 34.—A RESOLUTION extending the time for the completion of the Union Pacific Railway, eastern division. 14 Stat., 355.

SEC. 2. *And be it further resolved*, That the time for commencing, and completing the Northern Pacific Railroad, and all its several sections, is extended for the term of two years. Northern Pacific Railroad.

ACT OF JUNE 25, 1863.

(Repealed.)

AN ACT relative to filing reports of railroad companies.

15 Stat., 79.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the reports required to be made to the Secretary of the Treasury on or before the first day of July of each year, by the corporations created by or entitled to subsidies under the provisions of an act entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes," approved July first, eighteen hundred and sixty-two, and the acts supplemental to and amendatory thereof, shall hereafter be made to the Secretary of the Interior, on or before the first day of October of each year. Said reports shall furnish full and specific information upon the several points mentioned in the twentieth section of the said act of eighteen hundred and sixty-two, and shall be verified as therein prescribed, and on failure to make the same as herein required, the issue of bonds or patents to the company in default shall be suspended until the requirements of this act shall be complied with by such company. And the reports hitherto made to the Secretary of the Treasury under the said act of July first, eighteen hundred and sixty-two, shall be transferred and delivered by him to the Secretary of the Interior to be filed by him. Reports to the Secretary of the Interior to be made on or before the first day of October of each year by subsidized Pacific railroad companies.

Northern Pacific, Atlantic and Pacific and Southern Pacific Railroad Companies to report at same time as the Union Pacific Railroad Company.

Reports of examining commissioners to be addressed to and filed in the Department of the Interior.

Annual reports of officers to be furnished annually to the Secretary of the Interior.

SEC. 2. *And be it further enacted*, That the corporations created by the provisions of the acts of Congress approved July second, eighteen hundred and sixty-four, and July twenty-seventh, eighteen hundred and sixty-six, and known as the Northern Pacific Railroad Company, the Atlantic and Pacific Railroad Company, and the Southern Pacific Railroad Company, shall make reports to the Secretary of the Interior on or before the first of October of each year, as are required to be made by the Union Pacific Railroad and branches, under the provisions of the first section of this act, and on failure so to do, shall be subject to the like suspension.

SEC. 3. *And be it further enacted*, That the reports required from the commissioners appointed to examine and report in relation to the road of any of the corporations whereto reference is made in this act, shall be addressed to and filed in the Department of the Interior; and all such reports heretofore made shall be transferred to and filed in said Department of the Interior; and so much of any and all acts as requires any reports from such companies, or any officers thereof, to be made to the Secretary of the Treasury, is hereby repealed.

SEC. 4. *And be it further enacted*, That, in addition to the eight subjects referred to in section twenty of the act of July, eighteen hundred and sixty-two, to be reported upon, there shall also be furnished annually to the Secretary of the Interior all reports of engineers, superintendents, or other officers who make annual reports to any of said railroad companies.

(The foregoing act was repealed by act of Congress, approved June 19, 1878, 20 U. S. Stat., 169.)

JOINT RESOLUTION OF JULY 1, 1868.

15 Stat., p. 255. No. 47.—JOINT RESOLUTION extending the time for the completion of the Northern Pacific Railroad.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That section eight of an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from Lake Superior to Puget Sound, on the Pacific coast," is hereby so amended as to read as follows: That each and every

Section 8, chap. 217, 13 Stat., 370, amended.
Time extended to July 4, 1879. (See res. of May 7, 1866, 14 Stat., 355.)

grant, right, and privilege herein, are so made and given to and accepted by said Northern Pacific Railroad Company upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from and after the second day of July, eighteen hundred and sixty-eight, and shall complete not less than one hundred miles per year after the second year thereafter, and shall construct, equip, furnish, and complete the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-seven.

JOINT RESOLUTION OF MARCH 1, 1869.

15 Stat., 346. No. 15.—JOINT RESOLUTION granting the Consent of Congress provided for in section ten of the Act incorporating the Northern Pacific Railroad Company, approved July second, eighteen hundred and sixty-four.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the consent of the Congress of the United States is hereby given to the Northern Pacific Railroad Company to issue its bonds, and to secure the same by mortgage upon its railroad and its telegraph line, for the purpose of raising funds with which to construct said railroad and telegraph line between Lake Superior and Puget Sound, and also upon its branch to a point at or near

Consent of Congress given to issue mortgage bonds for construction purposes.
Meaning of term "Puget Sound."

Portland, Oregon; and the term "Puget Sound," as used here and in the act incorporating said company, is hereby construed to mean all the waters connected with the Straits of Juan de Fuca within the territory of the United States.

JOINT RESOLUTION OF APRIL 10, 1869.

No. 20.—JOINT RESOLUTION granting Right of Way for the Construction of a Railroad from a Point at or near Portland, Oregon, to a Point west of the Cascade Mountains, in Washington Territory. 16 Stat., 57.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Northern Pacific Railroad Company be, and hereby is, authorized to extend its branch line from a point at or near Portland, Oregon, to some suitable point on Puget Sound, to be determined by said company, and also to connect the same with its main line west of the Cascade mountains, in the Territory of Washington; said extension being subject to all the conditions and provisions, and said company in respect thereto being entitled to all the rights and privileges conferred by the act incorporating said company, and all acts additional to and amendatory thereof: *Provided*, That said company shall not be entitled to any subsidy in money, bonds, or additional lands of the United States, in respect to said extension of its branch line as aforesaid, except such lands as may be included in the right of way on the line of such extension as it may be located: *And provided further*, That at least twenty-five miles of said extension shall be constructed before the second day of July, eighteen hundred and seventy-one, and forty miles per year thereafter until the whole of said extension shall be completed.

Company authorized to extend its branch line from Portland to Puget Sound.

Not entitled hereby to any subsidy or additional lands.

RESOLUTION OF MAY 31, 1870.

No. 67.—A RESOLUTION authorizing the Northern Pacific Railroad Company to issue its Bonds for the Construction of its road and to secure the same by Mortgage, and for other Purposes. 16 Stat., 378.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Northern Pacific Railroad Company be, and hereby is, authorized to issue its bonds to aid in the construction and equipment of its road, and to secure the same by mortgage on its property and rights of property of all kinds and descriptions, real, personal, and mixed, including its franchises as a corporation; and, as proof and notice of its legal execution and effectual delivery, said mortgage shall be filed and recorded in the office of the Secretary of the Interior; and also to locate and construct, under the provisions and with the privileges, grants, and duties provided for in its act of incorporation, its main road to some point on Puget Sound, via the valley of the Columbia River, with the right to locate and construct its branch from some convenient point on its main trunk line across the Cascade Mountains to Puget Sound; and in the event of there not being in any State or Territory in which said main line or branch may be located, at the time of the final location thereof, the amount of lands per mile granted by Congress to said company, within the limits prescribed by its charter, then said company shall be entitled, under the directions of the Secretary of the Interior, to receive so many sections of land belonging to the United States, and designated by odd numbers, in such State or Territory, within ten miles on each side of said road, beyond the limits prescribed in said charter, as will make up such deficiency, on said main line or branch, except mineral and other lands as exempted in the charter of said company of eighteen hundred and sixty-four, to the amount of the lands that have been granted, sold, reserved, occupied by homestead settlers, pre-empted, or otherwise disposed of subsequent to the passage of the act of July two, eighteen hundred and sixty-four, and that twenty-five miles of said main line between its western terminus and the city of Portland, in the State of Oregon, shall be completed by the first day of January, anno Domini eighteen hundred and seventy-two, and forty miles of the remaining portion thereof each year thereafter until the whole shall be completed between said points: *Provided*, That all lands hereby granted to said company which shall not be sold or disposed of or remain subject to the mortgage by this act authorized, at the expiration of five years after the completion of the entire road, shall be subject to settlement and preëmption like other lands, at a price to be paid to said company not exceeding two dollars and fifty cents per acre; and if the mortgage hereby authorized shall at any time be enforced by foreclosure

Authorized to issue mortgage bonds for construction and equipment of road.

Mortgage to be filed and recorded in the office of the Secretary of the Interior.

Authorized to locate its main road via Columbia River, with a branch across the Cascade Mountains to Puget Sound.

Limits within which indemnity lands may be obtained increased ten miles, being sixty miles on each side of the road.

Company's lands unsold and not mortgaged subject to settlement at not over \$2.50 per acre five years after completion of the entire road.

American iron or steel, manufactured from American ores exclusively, shall only be used.

Congress reserves the right to alter or amend.

ure or other legal proceeding, or the mortgaged lands hereby granted, or any of them, be sold by the trustees to whom such mortgage may be executed, either at its maturity or for any failure or default of said company under the terms thereof, such lands shall be sold at public sale, at places within the States and Territories in which they shall be situate, after not less than sixty days previous notice, in single sections or subdivisions thereof, to the highest and best bidder: *Provided further,* That in the construction of the said railroad, American iron or steel only shall be used, the same to be manufactured from American ores exclusively.

SEC. 2. *And be it further resolved,* That Congress may at any time alter or amend this joint resolution, having due regard to the rights of said company and any other parties.

LAWS RELATING TO THE ATLANTIC AND PACIFIC RAILROAD.

ACT OF JULY 27, 1866.

14 Stat., 292.

AN ACT granting Lands to aid in the Construction of a Railroad and Telegraph Line from the States of Missouri and Arkansas to the Pacific Coast.

Atlantic and Pacific Railroad Company incorporated.

Name.

Empowered to lay out, construct, and enjoy a continuous railroad and telegraph line.

From Springfield, Mo., via Albuquerque, N. Mex., along the 35th parallel of latitude, to the Pacific.

Right to construct a branch from Canadian River to a point near Van Buren, Ark.

Capital stock, \$100,000,000.

Board of commissioners appointed.

First meeting of commissioners to be held in St. Louis, Mo.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That John B. Brown, Anson P. Morrill, Samuel F. Hersey, William G. Crosby, Samuel E. Spring, Samuel P. Dinsmore, of Maine; * * * and all such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic. in deed and in law, by the name, style, and title of the "Atlantic and Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal. And said corporation is hereby authorized and empowered to lay out, locate, and construct, furnish, maintain, and enjoy, a continuous railroad and telegraph line, with the appurtenances, namely: Beginning at or near the town of Springfield, in the State of Missouri, thence to the western boundary line of said State, and thence by the most eligible railroad route as shall be determined by said company to a point on the Canadian River, thence to the town of Albuquerque, on the River Del Norte, and thence by way of the Agua Frio, or other suitable pass, to the head waters of the Colorado Chiquito, and thence, along the thirty-fifth parallel of latitude as near as may be found most suitable for a railway route, to the Colorado River, at such point as may be selected by said company for crossing; thence, by the most practicable and eligible route, to the Pacific. The said company shall have the right to construct a branch from the point at which the road strikes the Canadian River eastwardly, along the most suitable route as selected, to a point in the western boundary line of Arkansas, at or near the town of Van Buren. And the said company is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act, as herein set forth. The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property, and shall be transferable in such manner as the laws of said corporation shall provide. The persons hereinbefore named are hereby appointed commissioners, and shall be called the board of commissioners, of the "Atlantic and Pacific Railroad Company," and fifteen shall constitute a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Turner Hall, in the city of Saint Louis, on the first day of October, anno Domini eighteen hundred and sixty-six, or at such time within three months thereafter as any ten commissioners herein named from Missouri shall appoint, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Cincinnati, Saint Louis, Memphis, and Nashville, once a week for at least four weeks previous to the day of meeting. Said board shall organize

by the choice from its number of a president, vice-president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof, as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of said boards shall, in like manner, call other meetings, naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities or other places in the United States as they or a quorum of them shall determine, within twelve months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as ten thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened, at least fifteen days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by lawful proxy, then and there shall elect, by ballot, thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners, and in case of their absence or inability any two of the officers of said board, shall act as inspectors of said election, and shall certify, under their hands, the names of the directors elected at said meeting. And the said commissioners, treasurer, and secretary shall then deliver over to said directors all the moneys, properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers (when they are to be chosen), and for the transaction of business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

SEC. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to the said Atlantic and Pacific Railroad Company, its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power, and authority is hereby given to said corporation to take from the public lands adjacent to the line of said road material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of one hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary grounds for station-buildings, workshops, depots, machine-shops, switches, side-tracks, turn-tables, and water-stations; and the right of way shall be exempt from taxation within the Territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the Indians, and only by their voluntary cession, the Indian title to all lands falling under the operation of this act and acquired in the donation to the road named in the act.

SEC. 3. *And be it further enacted*, That there be, and hereby is, granted to the Atlantic and Pacific Railroad Company, its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific Coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway and its branches, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever, on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights, at the time the line of said road is designated by a plat thereof, filed in the office of the commissioner

Organization of board.

President and secretary to call other meetings.

Duty of the board of commissioners to open books for subscriptions to stock.

First meeting of subscribers to stock.

Thirteen directors to be elected by stockholders.

Commissioners to deliver over to the directors all the moneys, properties, books, &c.

Annual meetings of stockholders.

Grant of right of way.

Authority to take from adjacent lands materials for construction.

Right of way 100 feet in width on each side of said railroad.

Right of way exempt from taxation.

Indian titles to be extinguished by the United States.

Grant of lands.

Forty sections per mile in the Territories.

Twenty sections per mile in the States.

Other lands may be selected in lieu of those reserved.

Land limits. If route is upon the line of any other aided road former grant shall be deducted.

Road having previous grant may assign.

"Mineral" lands not granted.

Agricultural lands in lieu of mineral lands.

"Mineral" does not include iron or coal.

The President to appoint three Commissioners to examine road.

Commissioners to report, under oath, to the President.

Road to be constructed as a "first-class" railroad.

Rails to be of American iron.

Gauge to be uniform.

Telegraph line.

Condition as to charges for Government transportation and telegraphic service.

Other roads may form running connections on equitable terms.

Lands to be surveyed as fast as construction of road may require.

of the General Land-Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections, and not including the reserved numbers: *Provided*, That if said route shall be found upon the line of any other railroad route, to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: *Provided further*, That the railroad company receiving the previous grant of land may assign their interest to said "Atlantic and Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first and seventeenth sections of this act: *Provided further*, That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands in odd-numbered sections nearest to the line of said road, and within twenty miles thereof, may be selected as above provided: *And provided further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal: *And provided further*, That no money shall be drawn from the Treasury of the United States to aid in the construction of the said "Atlantic and Pacific Railroad."

SEC. 4. *And be it further enacted*, That whenever said Atlantic and Pacific Railroad Company shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated, the President of the United States shall appoint three commissioners to examine the same, who shall be paid a reasonable compensation for their services by the company, to be determined by the Secretary of the Interior; and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial and workman-like manner, as in all other respects required by this act, the commissioners shall so report under oath, to the President of the United States, and patents of lands, as aforesaid, shall be issued to said company, confirming to said company the right and title to said lands situated opposite to and coterminous with said completed section of said road. And from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid.

SEC. 5. *And be it further enacted*, That said Atlantic and Pacific Railroad shall be constructed in a substantial and workman-like manner, with all the necessary draws, culverts, bridges, viaducts, crossings, turn-outs, stations and watering-places, and all other appurtenances, including furniture and rolling-stock, equal in all respects to railroads of the first-class when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line, of the most substantial and approved description, to be operated along the entire line: *Provided*, That the said company shall not charge the Government higher rates than they do individuals for like transportation and telegraphic service. And it shall be the duty of the Atlantic and Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature of any Territory or State in which the same may be situated, to form running connections with it, on fair and equitable terms.

SEC. 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale or entry, or pre-emption, before or after they are surveyed, except by said company, as provided in this act; but the provision of the act of September, eighteen hundred and forty-one, granting pre-

emption rights, and the act amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same are hereby, extended to all other lands on the line of said road when surveyed, excepting those hereby granted to said company.

SEC. 7. *And be it further enacted*, That the said Atlantic and Pacific Railroad Company be, and is hereby, authorized and empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of the line of its railroad, unless a greater width be required for the purposes of excavation or embankment; and also any lands or premises that may be necessary and proper for turn-outs, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, incumber its road-bed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by either party to any court of record in any of the Territories in which the lands or premises to be taken lie; and said commissioners, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or sureties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict more favorable, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, at a sum equal to that finally awarded, shall be held to vest in said company the title of said land, and the right to use and occupy the same for the construction, maintenance, and operation of said road. And in case any of the lands to be taken as aforesaid shall be held by an infant, femme covert, non compos, insane person, or persons residing without the territory within which the lands to be taken lie, or persons subjected to any legal disability, the court may appoint a guardian, for any party under any disqualification, to appear in proper person, who shall give bonds, with sufficient surety or sureties, for the proper and faithful execution of his trust, and who may represent in court the person disqualified, as aforesaid, from appearing when the same proceedings shall be had in reference to the appraisement of the premises to be taken for the use of said company, and with the same effect as has been already described; and the title of the company to the lands taken by virtue of this act shall not be affected or impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case any party shall have a right or claim to any land for a term of years, or any interest therein, in possession, reversion, or remainder, the value of any such estate, less than a fee simple, shall be estimated and determined in the manner hereinbefore set forth. And in case it shall be necessary for the company to enter upon any lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purposes of said railroad, and may institute proceedings, in manner described, for the purpose of ascertaining the value of, and of acquiring a title to, the same; but the judge of the court hearing said suit shall determine the kinds of notice to be served on such owner or owners, and he may in his discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appear-

Authorizes company to take any lands necessary for construction of its road. 100 feet on each side.

Lands for turn-outs, depots, &c.

Damages to be determined by commissioners.

Procedure.

What proceedings in cases of lands held by any persons subject to any legal disability.

Other proceedings.

Proceedings when lands are unoccupied.

Claims barred if not made within six years.

Grants made subject to certain conditions.

Whole road to be completed by July 4, 1878.

Congress may do anything necessary to insure a speedy completion of the road.

All people of the United States may subscribe to the stock until whole amount is taken up.

To be a post-route and military road.

Congress may restrict charges for Government transportation.

Company to accept terms, conditions, &c., within two years.

Annual report to be verified by affidavits of president and six directors of company.

Election of president and vice-president from board of directors.

Treasurer and secretary.

Term of office of president, vice-president, and directors not to exceed three years.

Directors empowered to make by-laws, rules, and regulations.

ance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claims to damages against said company shall be barred.

SEC. 8. *And be it further enacted*, That each and every grant, right, and privilege herein are so made and given to and accepted by said Atlantic and Pacific Railroad Company, upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from the approval of this act by the President, and shall complete not less than fifty miles per year after the second year, and shall construct, equip, furnish, and complete the main line of the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-eight.

SEC. 9. *And be it further enacted*, That the United States make the several conditional grants herein, and that the said Atlantic and Pacific Railroad Company accept the same, upon the further condition that if the said company make any breach of the conditions hereof, and allow the same to continue for upwards of one year, then, in such case, at any time hereafter, the United States may do any and all acts and things which may be needful and necessary to insure a speedy completion of the said road.

SEC. 10. *And be it further enacted*, That all people of the United States shall have the right to subscribe to the stock of the Atlantic and Pacific Railroad Company until the whole capital named in this act of incorporation is taken up by complying with the terms of subscription.

SEC. 11. *And be it further enacted*, That said Atlantic and Pacific Railroad, or any part thereof, shall be a post-route and military road, subject to the use of the United States for postal, military, naval, and all other Government service, and also subject to such regulations as Congress may impose restricting the charges for such Government transportation.

SEC. 12. *And be it further enacted*, That the acceptance of the terms, conditions, and impositions of this act by the said Atlantic and Pacific Railroad Company shall be signified in writing under the corporate seal of said company, duly executed pursuant to the direction of its board of directors first had and obtained, which acceptance shall be made within two years after the passage of this act, and not afterwards, and shall be deposited in the office of the Secretary of the Interior.

SEC. 13. *And be it further enacted*, That the directors of said company shall make and publish an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, a copy of which shall be deposited in the office of said Secretary of the Interior, and they shall, from time to time, fix, determine, and regulate the fares, tolls, and charges to be received and paid for transportation of persons and property on said road, or any part thereof.

SEC. 14. *And be it further enacted*, That the directors chosen in pursuance of the first section of this act shall so soon as may be after their election, elect from their own number a president and vice-president; and said board of directors shall, from time to time, and so soon as may be after their election, choose a treasurer and secretary, who shall hold their offices at the will and pleasure of the board of directors. The treasurer and secretary shall give such bonds, with such security as the said board from time to time may require. The secretary shall, before entering upon his duty, be sworn to the faithful discharge thereof, and said oath shall be made a matter of record upon the books of said corporation. No person shall be a director of said company unless he shall be a stockholder, and qualified to vote for directors at the election at which he shall be chosen.

SEC. 15. *And be it further enacted*, That the president, vice-president, and directors shall hold their offices for the period indicated in the by-laws of said company, not exceeding three years, respectively, and until others are chosen in their place, and qualified. In case it shall so happen that an election of directors shall not be made on any day appointed by the by-laws of said company, the corporation shall not for that excuse be deemed to be dissolved, but such election may be holden on any day which shall be appointed by the directors. The directors, of whom seven, including the president, shall be a quorum for the transaction of business, shall have full power to make and prescribe such by-laws, rules, and regulations as they shall deem needful and proper touching the disposition and management of stock, property, estate,

and effects of the company, the transfer of shares, the duties and conduct of their officers and servants touching the election and meeting of the directors, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors may have full power to fill any vacancy or vacancies that may occur from any cause or causes from time to time in their said board. And the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of the company, and to do all acts and things touching the location and construction of said road.

Directors may fill vacancies in board.

Directors empowered to appoint engineers, agents, &c.

SEC. 16. *And be it further enacted*, That it shall be lawful for the directors of said company to require payment of the sum of ten per centum cash assessment upon all subscriptions received of all subscribers, and the balance thereof at such times and in such proportion and on such conditions as they shall deem to be necessary to complete the said road and telegraph lines within the time in this act prescribed. Sixty days' previous notice shall be given of the payments required, and of the time and place of payment, by publishing a notice once a week in one daily newspaper in each of the cities of Boston, New York, Cincinnati, St. Louis, Memphis, and Nashville, and in case any stockholder shall neglect or refuse to pay, in pursuance of such notice, the stock held by such person shall be forfeited absolutely to the use of the company, and also any payment or payments that shall have been made on account thereof, subject to the condition that the board of directors may allow the redemption on such terms as they may prescribe.

Directors to require payment of ten per centum, cash assessment, and balance of subscriptions when needed.

Forfeited stock may be redeemed on terms prescribed by directors.

SEC. 17. *And be it further enacted*, That the said company is authorized to accept to its own use any grant, donation, loan, power, franchise, aid, or assistance which may be granted to or conferred on said company by the Congress of the United States, by the legislature of any State, or by any corporation, person, or persons, or by any Indian tribe or nation through whose reservation the road herein provided for may pass; and said corporation is authorized to hold and enjoy any such grant, donation, loan, power, franchise, aid, or assistance, to its own use, for the purpose aforesaid: *Provided*, That any such grant or donation, power, aid, or assistance from any Indian tribe or nation shall be subject to the approval of the President of the United States.

Company authorized to accept other grants, franchises, &c.

Grant from any Indian tribe to be subject to the approval of the President.

SEC. 18. *And be it further enacted*, That the Southern Pacific Railroad, a company incorporated under the laws of the State of California, is hereby authorized to connect with the said Atlantic and Pacific Railroad, formed under this act, at such point, near the boundary line of the State of California, as they shall deem most suitable for a railroad line to San Francisco, and shall have a uniform gauge and rate of freight or fare with said road; and in consideration thereof, to aid in its construction, shall have similar grants of land, subject to all the conditions and limitations herein provided, and shall be required to construct its road on the like regulations, as to time and manner, with the Atlantic and Pacific Railroad herein provided for.

Southern Pacific may connect with the Atlantic and Pacific Road.

Point of connection to be near the boundary line of California.

Uniform gauge and rate of freight and fare.

Shall have similar grants of land, &c.

SEC. 19. *And be it further enacted*, That unless the said Atlantic and Pacific Railroad Company shall obtain bona fide subscriptions to the stock of said company to the amount of one million of dollars, with ten per centum paid, within two years after the passage of and approval of this act, it shall be null and void.

This act to be null and void, unless one million of dollars of stock are subscribed for within two years.

SEC. 20. *And be it further enacted*, That the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the Government at all times, but particularly in time of war, the use and benefits of the same for postal, military, and other purposes, Congress may, at any time, having due regard for the rights of said Atlantic and Pacific Railroad Company, add to, alter, amend, or repeal this act.

Congress may add to, alter, amend, or repeal this act, having due regard for the rights of the company.

SEC. 21.* *And be it further enacted*, That whenever in any grant of land or other subsidies, made or hereafter to be made, to railroads or other corporations, the United States has reserved the right, or shall reserve it, to appoint directors, engineers, commissioners, or other agents to examine said roads, or act in conjunction with other officers of said company or companies, all the costs, charges, and pay of said directors, engineers, commissioners, or agents, shall be paid by the respective companies. Said directors, engineers, commissioners, or agents

Compensation of directors, engineers, commissioners, &c., to be paid by railroad companies.

* This section has been incorporated in the Revised Statutes as section 5259.

Ten dollars per day and ten cents per mile shall be paid for said services the sum of ten dollars per day, for each day and ten cents per mile for each and every mile actually and necessarily traveled, in discharging the duties required of them, which per diem and mileage shall be in full compensation for said services. And in case any company shall refuse or neglect to make such payments, no more patents for land or other subsidies shall be issued to said company until these requirements are complied with.

If company neglects to make such payments, patents for lands not to be issued.

ACT OF APRIL 20, 1871.

17 Stat., 19. AN ACT to enable the Atlantic and Pacific Railroad Company to mortgage its road.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Atlantic and Pacific Railroad Company, organized under act of Congress of July twenty-seven, eighteen hundred and sixty-six, is hereby authorized to make and issue its bonds in such form and manner, and for such sums, payable at such times, and bearing such rate of interest, and to dispose of them on such terms as its directors may deem advisable; and to secure said bonds, the said company may mortgage its road, equipment, lands, franchises, privileges, and other rights and property, subject to such terms, conditions, and limitations as its directors may prescribe. As proof and notice of the legal execution and effectual delivery of any mortgage hereafter made by said company, it shall be filed and recorded in the office of the Secretary of the Interior: *Provided*, That if the company shall hereafter suffer any breach of the conditions of the act above referred to, under which it is organized, the rights of those claiming under any mortgage made by the company to the lands granted to it by said act shall extend only to so much thereof as shall be coterminous with or appertaining to that part of said road which shall have been constructed at the time of the foreclosure of said mortgage.

The Atlantic and Pacific Railroad Company authorized to issue its bonds. Road, equipment, lands, franchises, &c., may be mortgaged to secure the bonds.

Mortgage to be filed and recorded in the office of the Secretary of the Interior.

Breach of conditions of organic act will affect those claiming under any foreclosure of the mortgage.

ACT OF JULY 6, 1886.

24 Stat., 123. AN ACT to forfeit the lands granted to the Atlantic and Pacific Railroad Company to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast, and to restore the same to settlement and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all the lands, excepting the right of way and the right, power, and authority given to said corporation to take from the public lands adjacent to the line of said road material of earth, stone, timber, and so forth, for the construction thereof, including all necessary grounds for station buildings, workshops, depots, machine-shops, switches, side-tracks, turn-tables, and water-stations, heretofore granted to the Atlantic and Pacific Railroad Company by an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific coast," approved July twenty-seventh, eighteen hundred and sixty-six, and subsequent acts and joint resolutions of Congress, which are adjacent to and coterminous with the uncompleted portions of the main line of said road, embraced within both the granted and indemnity limits, as contemplated to be constructed under and by the provisions of the said act of July twenty seventh, eighteen hundred and sixty-six, and acts and joint resolutions subsequent thereto and relating to the construction of said road and telegraph, be and the same are hereby, declared forfeited and restored to the public domain.

Atlantic and Pacific Railroad Company. Forfeiture of grant of lands adjacent to uncompleted portion of road, except right of way, etc.

Vol. 14, p. 292.

**LAWS RELATING TO THE CALIFORNIA AND OREGON, AND
THE OREGON AND CALIFORNIA RAILROADS.**

ACT OF JULY 25, 1866.

AN ACT granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad, in California, to Portland, in Oregon. 14 Stat., 239.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the "California and Oregon Railroad Company," organized under an act of the State of California, to protect certain parties in and to a railroad survey, "to connect Portland, in Oregon, with Marysville, in California," approved April sixth, eighteen hundred and sixty-three, and such company organized under the laws of Oregon as the legislature of said State shall hereafter designate, be, and they are hereby, authorized and empowered to lay out, locate, construct, finish, and maintain a railroad and telegraph line between the city of Portland, in Oregon, and the Central Pacific Railroad, in California, in the manner following, to wit: The said California and Oregon Railroad Company, to construct that part of the said railroad and telegraph within the State of California, beginning at some point (to be selected by said company) on the Central Pacific Railroad in the Sacramento Valley, in the State of California, and running thence northerly, through the Sacramento and Shasta Valleys, to the northern boundary of the State of California; and the said Oregon company to construct that part of the said railroad and telegraph line within the State of Oregon, beginning at the city of Portland, in Oregon, and running thence southerly through the Willamette, Umpqua, and Rogue River valleys to the southern boundary of Oregon, where the same shall connect with the part aforesaid to be made by the first-named company: *Provided*, That the company completing its respective part of the said railroad and telegraph from either of the termini herein named to the line between California and Oregon before the other company shall have likewise arrived at the same line, shall have the right, and the said company is hereby authorized, to continue in constructing the same beyond the line aforesaid, with the consent of the State in which the unfinished part may lie, upon the terms mentioned in this act, until the said parts shall meet and connect, and the whole line of said railroad and telegraph shall be completed.

The California and Oregon R. R. Co. of California and an Oregon company empowered to locate and construct a railroad and telegraph line between Portland, Oreg., and the Central Pacific Railroad in California.

The California company to construct road to northern boundary of State.

The Oregon company to construct the road to the southern boundary of Oregon.

The company first completing its part may continue its road with consent of State.

SEC. 2. *And be it further enacted*, That there be, and hereby is, granted to the said companies, their successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores over the line of said railroad, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile (ten on each side) of said railroad line; and when any of said alternate sections or parts of sections shall be found to have been granted, sold, reserved, occupied by homestead settlers, pre-empted, or otherwise disposed of, other lands, designated as aforesaid, shall be selected by said companies in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections designated by odd numbers as aforesaid, nearest to and not more than ten miles beyond the limits of said first-named alternate sections; and as soon as the said companies, or either of them, shall file in the office of the Secretary of the Interior a map of the survey of said railroad, or any portion thereof, not less than sixty continuous miles from either terminus, the Secretary of the Interior shall withdraw from sale public lands herein granted on each side of said railroad, so far as located and within the limits before specified. The lands herein granted shall be applied to the building of said road within the States, respectively, wherein they are situated. And the sections and parts of sections of land which shall remain in the United States within the limits of the aforesaid grant shall not be sold for less than double the minimum price of public lands when sold: *Provided*, That bona fide and actual settlers under the pre-emption laws of the United States may, after due proof of settlement, improvement, and occupation, as now provided by law, purchase the same at the price fixed for said lands at the date of such settlement, improvement, and

Grant of land.

Twenty sections per mile. If any sections of land have been sold, or are occupied, other lands may be selected in lieu thereof.

Limits, 10 miles beyond grant.

When maps of surveys are filed lands to be withdrawn from sale.

Lands granted to be applied to building road in the States where they lie.

Remaining lands to be sold, for what price.

Settlers under pre-emption laws may purchase, at what price, &c.

Under homestead act may have not over 80 acres.

Grant of right of way.

Materials for construction from adjacent lands.

Rights of way 100 feet on each side of said railroad.

Lands for stations, &c.

The President to appoint 3 commissioners to examine road.

Commissioners to report under oath to the President.

Patents to be issued for lands coterminous with completed railroad.

Condition of grant.

Fair and reasonable rates of compensation.

Railroad to be a public highway and free to the United States.

Property and troops of the United States to be transported at the cost of the companies when so required by the Government.

Companies to file assent to this act within 1 year.

Road to be completed by July 1, 1875.

Gauge to be same as Central Pacific.

Companies to use and operate road as one continuous line.

No discrimination whatever.

occupation: *And provided, also,* That, settlers under the provisions of the homestead act, who comply with the terms and requirements of said act, shall be entitled, within the limits of said grant, to patents for an amount not exceeding eighty acres of the land so reserved by the United States, anything in this act to the contrary notwithstanding.

SEC. 3. *And be it further enacted,* That the right of way through the public lands be, and the same is hereby, granted to said companies for the construction of said railroad and telegraph line; and the right, power, and authority are hereby given to said companies to take from the public lands adjacent to the line of said road, earth, stone, timber, water, and other materials for the construction thereof. Said right of way is granted to said railroad to the extent of one hundred feet in width on each side of said railroad where it may pass over the public lands, including all necessary grounds for stations, buildings, workshops, depots, machine-shops, switches, side-tracks, turn-tables, water-stations, or any other structures required in the construction and operating of said road.

SEC. 4. *And be it further enacted,* That whenever the said companies, or either of them, shall have twenty or more consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated by this act, the President of the United States shall appoint three commissioners, whose compensation shall be paid by said company, to examine the same, and if it shall appear that twenty consecutive miles of railroad and telegraph shall have been completed and equipped in all respects as required by this act, the said commissioners shall so report under oath to the President of the United States, and thereupon patents shall issue to said companies, or either of them, as the case may be, for the lands hereinbefore granted, to the extent of and coterminous with the completed section of said railroad and telegraph line as aforesaid; and from time to time, whenever twenty or more consecutive miles of the said road and telegraph shall be completed and equipped as aforesaid, patents shall in like manner issue upon the report of the said commissioners, and so on until the entire railroad and telegraph authorized by this act shall have been constructed, and the patents of the lands herein granted shall have been issued.

SEC. 5. *And be it further enacted,* That the grants aforesaid are made upon the condition that the said companies shall keep said railroad and telegraph in repair and use, and shall at all times transport the mails upon said railroad, and transmit dispatches by said telegraph line for the Government of the United States, when required so to do by any Department thereof, and that the Government shall at all times have the preference in the use of said railroad and telegraph therefor at fair and reasonable rates of compensation, not to exceed the rates paid by private parties for the same kind of service. And said railroad shall be and remain a public highway for the use of the Government of the United States, free of all toll or other charges upon the transportation of the property or troops of the United States; and the same shall be transported over said road at the cost, charge, and expense of the corporations or companies owning or operating the same, when so required by the Government of the United States.

SEC. 6. *And be it further enacted,* That the said companies shall file their assent to this act in the Department of the Interior within one year after the passage hereof and shall complete the first section of twenty miles of said railroad and telegraph within two years, and at least twenty miles in each year thereafter, and the whole on or before the first day of July, one thousand eight hundred and seventy-five; and the said railroad shall be of the same gauge as the "Central Pacific Railroad" of California, and be connected therewith.

SEC. 7. *And be it further enacted,* That the said companies named in this act are hereby required to operate and use the portions or parts of said railroad and telegraph mentioned in section one of this act for all purposes of transportation, travel, and communication, so far as the Government and public are concerned, as one connected and continuous line; and in such operation and use to afford and secure to each other equal advantages and facilities as to rates, time, and transportation, without any discrimination whatever, on pain of forfeiting the full amount of damage sustained on account of such discrimination, to be sued for and recovered in any court of the United States, or of any State, of competent jurisdiction.

SEC. 8. *And be it further enacted*, That in case the said companies shall fail to comply with the terms and conditions required, namely, by not filing their assent thereto, as provided in section six of this act, or by not completing the same as provided in said section, this act shall be null and void, and all the lands not conveyed by patent to said company or companies, as the case may be, at the date of any such failure, shall revert to the United States. And in case the said railroad and telegraph line shall not be kept in repair and fit for use, after the same shall have been completed, Congress may pass an act to put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the United States, to repay all expenditures caused by the default and neglect of said companies or either of them, as the case may be, or may fix pecuniary responsibility, not exceeding the value of the lands granted by this act.

If companies fail to comply with certain conditions, this act to be void, and the lands not conveyed to revert to the United States.

If road and telegraph line are not kept in repair Congress may, &c.

SEC. 9. *And be it further enacted*, That the said "California and Oregon Railroad Company" and the said "Oregon Company" shall be governed by the provisions of the general railroad and telegraph laws of their respective States, as to the construction and management of the said railroad and telegraph line hereinbefore authorized, in all matters not provided for in this act. Wherever the word "company" or "companies" is used in this act it shall be construed to embrace the words "their associates, successors, and assigns," the same as if the words had been inserted, or thereto annexed.

The companies to be governed by the laws of their respective States.

The word "company" to include "associates, successors, and assigns."

SEC. 10. *And be it further enacted*, That all mineral lands shall be excepted from the operations of this act; but where the same shall contain timber, so much of the timber thereon as shall be required to construct said road over such mineral land is hereby granted to said companies: *Provided*, That the term "mineral lands" shall not include lands containing coal and iron.

Mineral lands excepted from this grant.

"Mineral" not coal and iron.

SEC. 11. *And be it further enacted*, That the said companies named in this act shall obtain the consent of the legislatures of their respective States, and be governed by the statutory regulations thereof in all matters pertaining to the right of way, wherever the said road and telegraph line shall not pass over or through the public lands of the United States.

Companies to obtain the consent of States, where road and telegraph line do not pass through public lands.

SEC. 12. *And be it further enacted*, That Congress may at any time, having due regard for the rights of said California and Oregon railroad companies, add to, alter, amend, or repeal this act.

Act may be amended, &c.

ACT OF APRIL 10, 1869.

AN ACT to amend an Act entitled "An act granting Lands to aid in the construction of a Railroad and Telegraph Line from the Central Pacific Railroad, in California, to Portland, in Oregon," approved July twenty-five, eighteen hundred and sixty-six.

16 Stat., 47.
1866, ch. 242,
vol. xiv, p. 239.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section six of an act entitled "An act granting lands to aid in the construction of a railroad and telegraph line from the Central Pacific Railroad, in California, to Portland, in Oregon," approved July twenty-five, eighteen hundred and sixty-six, be, and the same is hereby, amended so as to allow any railroad company heretofore designated by the legislature of the State of Oregon, in accordance with the first section of said act, to file its assent to such act in the Department of the Interior within one year from the date of the passage of this act; and such filing of its assent, if done within one year from the passage hereof, shall have the same force and effect to all intents and purposes as if such assent had been filed within one year after the passage of said act: *Provided*, That nothing herein shall impair any rights heretofore acquired by any railroad company under said act, nor shall said act or this amendment be construed to entitle more than one company to a grant of land: *And provided further*, That the lands granted by the act aforesaid shall be sold to actual settlers only, in quantities not greater than one-quarter section to one purchaser, and for a price not exceeding two dollars and fifty cents per acre.

Assent of railroad company to act may be filed within one year from date of this act.

Acquired rights not affected.

Not more than one company entitled to a grant of land.

Lands, how and to whom to be sold.

LAW RELATING TO THE OREGON SHORT-LINE RAILWAY.

ACT OF AUGUST 2, 1882.

22 Stat., 185. AN ACT creating the Oregon Short-Line Railway Company a corporation in the Territories of Utah, Idaho, and Wyoming, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Oregon Short-Line Railway Company, a corporation of that name duly incorporated and organized under the laws of the Territory of Wyoming, the amended articles of incorporation of which were duly filed in the office of the secretary of the said Territory on the twelfth day of July, anno Domini eighteen hundred and eighty-one, be, and the same is hereby, made a railway corporation in the Territories of Utah, Idaho, and Wyoming, under the same conditions and limitations and with the same rights and privileges that it now has and enjoys under said articles of incorporation within the said Territory of Wyoming, and with all the rights and privileges within said Territories of Wyoming, Utah, and Idaho, which are secured to railway companies by the act of Congress approved the third day of March, anno Domini eighteen hundred and seventy-five, entitled "An act granting to railroads the right of way through the public lands of the United States": *Provided*, That the said corporation shall at all times hereafter be subject to all the laws and regulations of the United States in relation to railroads, or of any Territory or State through which its line of road may pass. And suits against said corporation may be instituted in the courts of said Territories, or either of them having jurisdiction by the laws of such Territory.

Oregon Short Line Railway Company created a railway corporation in Territories of Utah, Idaho, and Wyoming, with rights, &c.

18 Stat., 482. Proviso.

Right to alter, amend, &c.

SEC. 2. That Congress may at any time add to, alter, or repeal this act.

LAW RELATING TO ST. LOUIS, IRON MOUNTAIN AND SOUTHERN RAILROAD.

ACT OF JUNE 28, 1884.

23 Stat., 61. AN ACT to repeal section one of the act entitled "An act making a grant of lands in alternate sections to aid in the construction and extension of the Iron Mountain Railroad, from Pilot Knob, in the State of Missouri, to Helena, in Arkansas," approved July fourth, eighteen hundred and sixty-six, and for other purposes.

14 Stat., 83. Preamble.

Whereas by the first section of an act of Congress approved July the fourth, eighteen hundred and sixty-six, there was granted to the State of Missouri, for the purpose of aiding in the construction and extension of the Iron Mountain Railroad, from its terminus at Pilot Knob to a point on the southern boundary-line of the State, every alternate section of land designated by odd numbers, for ten sections in width on each side of said road; and

Whereas said Iron Mountain Railroad Company, or its successor, did not comply with the terms of said act either in time or by the construction of its line in accordance with the location of its line as shown on its maps filed in the Department of the Interior or otherwise, and never became entitled to or received any of said lands: Therefore,

Repeal of section one of act granting lands to aid in construction of Iron Mountain Railroad.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section one of the act of Congress entitled "An act making a grant of lands in alternate sections to aid in the construction and extension of the Iron Mountain Railroad, from Pilot Knob, in the State of Missouri, to Helena, in Arkansas," approved July fourth, Eighteen hundred and sixty-six, be and hereby is repealed; and upon the acceptance by the said Iron Mountain Railroad Company, its successors or assigns, in writing, under corporate seal, within six months from the passage of this act, and upon the production to the Secretary of the Interior by said company, its successors or assigns, of satisfactory proof that said lands have not been sold or encumbered by said company, the said Iron Mountain Railroad Company, its successors or assigns, shall be forever released from any and all obligations imposed by said act of July fourth, eighteen hundred and sixty-six; and all of the lands granted by said section one be and they are hereby restored to the public domain for disposition under the public land laws of the United States: *Provided*, That all pre-emption and homestead entries heretofore allowed upon any of said lands, not in ex-

Release of company; conditions.

Lands restored to the public domain; proviso.

cess of the legal quantity, be, and they are hereby, confirmed: *And provided further*, That all persons residing on any of said lands at the date of the passage of this act shall have a prior right to acquire the same, not exceeding one hundred and sixty acres, by the usual methods and under the usual restrictions: *Provided*, That there shall be excluded from the operation of the release of the obligations as a land grant road herein provided, that part of the railroad between Poplar Bluff, Missouri, and the Arkansas State line.

LAWS RELATING TO THE TEXAS AND PACIFIC RAILWAY.

ACT OF MARCH 3, 1871.

AN ACT to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its Road, and for other purposes. 16 Stat., 573.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That John C. Fremont, James L. Alcorn, G. M. Dodge, O. C. French, John D. Caldwell, * * * Texas Pacific Railroad Company incorporated. and all such persons as shall or may be associated with them, and their successors, are hereby created a body politic and corporate in fact and in law, by the name, style, and title of the Texas Pacific Railroad Company, and by that name shall have perpetual succession, and shall be able to sue and be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and use a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, from a point at or near Marshall, county of Harrison, State of Texas; thence by the most direct and eligible route, to be determined by said company, near the thirty-second parallel of north latitude, to a point at or near El Paso; thence by the most direct and eligible route, to be selected by said company, through New Mexico and Arizona, to a point on the Rio Colorado, at or near the southeastern boundary of the State of California; thence by the most direct and eligible route to San Diego California, to ship's channel, in the Bay of San Diego, in the State of California, pursuing in the location thereof, as near as may be, the thirty-second parallel of north latitude, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act. Empowered to lay out, construct, and enjoy a continuous railroad and telegraph line from Marshall, Tex., by a route near the 32d parallel of north latitude, via El Paso, through New Mexico and Arizona to San Diego, Cal.

SEC. 2. That the persons named in the first section of this act shall constitute a board of commissioners (twenty of whom shall constitute a quorum for the transaction of business), to be known as the Texas Pacific Railroad commissioners, who shall meet in the city of New York within ninety days after the passage of this act, at a time to be designated in a notice to be signed by the person first named in the list of incorporators and six of his associates, and to be published for two weeks in, at least, one daily newspaper in New York, New Orleans, and Washington; and, when so met, they may cause books to be opened for the subscription of the capital stock of said company, and when twenty thousand shares, amounting to two millions of dollars, shall have been subscribed, and ten per centum actually paid thereon, in money, to the treasurer, to be elected by said commissioners, who shall give bond for its safe keeping and payment to the treasurer of the company when organized, then it shall be lawful for such subscribers or stockholders, or a majority thereof, to organize said company in accordance with the provisions of this act, and to elect not less than seven nor more than seventeen directors, a majority of whom shall be necessary to the transaction of business, and who shall hold their offices for one year and until their successors shall be elected and qualified; and the said directors shall immediately proceed to elect a president, vice-president, secretary, and treasurer; the president and vice-president shall be directors. At all elections for directors, each share of stock shall be entitled to one vote, which may be given by the holder in person, or by proxy, who shall also be a shareholder. The directors shall hold their offices for any term not exceeding three years, as may be provided in the by-laws; and the annual meeting of stockholders shall take place as provided for in said by-laws. Board of commissioners constituted. To meet in the city of New York. Subscription books for capital stock to be opened. Stockholders to organize company, when, &c. Not less than seven nor more than seventeen directors. Term of office one year. Directors to elect officers. Term of office of directors three years. Annual meeting of stockholders.

Capital stock,
\$50,000,000.

Stock not to be
increased with-
out consent of
Congress.

Authority to
purchase prop-
erty of, and to
consolidate with
any railroad com-
pany not hav-
ing a competing
through line.

Authorized to
make running ar-
rangements with
other companies.

Rights, fran-
chises, &c., of
purchased rail-
roads to vest in
the Texas Pacif-
ic Railroad Com-
pany.

Obligations of
the other com-
panies to be as-
sumed.

Prior liens not
impaired.

Not to assume
debts to a greater
amount than the
cash value of as-
sets received.

Authority to
make and enforce
rules and by-
laws.

Grant of right
of way.

Authorized to
take materials
from adjacent
lands.

Right of way
200 feet in width
on each side of
said railroad.

Grant of
grounds for sta-
tions, &c., not ex-
ceeding 40 acres
in any one point.

Grant of land.
40 sections per
mile in the Terri-
tories.

20 sections per
mile in Califor-
nia.

If any of the
lands have been
disposed of other
lands may be se-
lected.

SEC. 3. That the capital stock of the Texas Pacific Railroad Company shall be fixed by the board of directors, at a sum not exceeding fifty millions of dollars, in shares of one hundred dollars; and when the amount is so fixed it shall never be increased except by consent of Congress. Assessments upon said stock shall only be made by a majority vote of the whole number of directors at a regular meeting, which said assessment shall be paid at the expiration of thirty days after a given notice in one newspaper in each of the cities of Washington, Philadelphia, New York, and New Orleans.

SEC. 4. That the said Texas Pacific Railroad Company shall have power and lawful authority to purchase the stock, land grants, franchises, and appurtenances of, and consolidate on such terms as may be agreed upon between the parties, with any railroad company or companies heretofore chartered by Congressional, State, or Territorial authority, on the route prescribed in the first section of this act; but no such consolidation shall be with any competing through line of railroads to the Pacific Ocean.

SEC. 5. That the said company shall have power and authority to make running arrangements with any railroad company or companies heretofore chartered, or that may hereafter be chartered by Congressional, State, or Territorial authority; also to purchase lands, or to accept donations, or grant of lands, or other property, from States or individuals, for the purpose of aiding in carrying out the object of this company.

SEC. 6. That the rights, lands, land grants, franchises, privileges, and appurtenances, and property of every description, belonging to each of the consolidated or purchased railroad company or companies, as herein provided, shall vest in and become absolutely the property of the Texas Pacific Railroad Company: *Provided*, That in all contracts made and entered into by said company with any and all other railroad company or companies, to perfect such aforesaid consolidation or purchase, the indebtedness or other legal obligations of said company or companies shall be assumed by the said Texas Pacific Railroad Company as may be agreed upon, and no such consolidation or purchase shall impair any lien which may exist on any of the railroads so consolidated or purchased; but said company shall not assume the debts or obligations of any company with which it may consolidate or purchase as aforesaid, to an amount greater than the cash value of the assets received from the same.

SEC. 7. That the said Texas Pacific Railroad Company shall have power to make and enforce rules and by-laws for the election of its officers and the government and management of the business of the company, and to do and perform all needful and proper things to be done and performed to promote the objects of the company hereby incorporated, not inconsistent with the laws of the United States and the provisions of this charter.

SEC. 8. That the right of way through the public lands be, and the same is hereby, granted to the said company for the construction of the said railroad and telegraph line, and the right, power, and authority is hereby given to said company to take, from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof. Said right of way is granted to said company to the extent of two hundred feet in width on each side of said railroad where it may pass over the public lands; and there is also hereby granted to said company grounds for stations, buildings, work-shops, wharves, switches, side-tracks, turn-tables, water-stations, and such other structures as may be necessary for said railroad, not exceeding forty acres of land at any one point.

SEC. 9. That for the purpose of aiding in the construction of the railroad and telegraph line herein provided for, there is hereby granted to the said Texas Pacific Railroad Company, its successors and assigns, every alternate section of public lands, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile on each side of said railroad line, as such line may be adopted by said company, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad in California, where the same shall not have been sold, reserved, or otherwise disposed of by the United States, and to which a pre-emption or homestead claim

may not have attached at the time the line of said road is definitely fixed. In case any of said lands shall have been sold, reserved, occupied, or pre-empted, or otherwise disposed of, other lands shall be selected in lieu thereof by said company, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections first above named, and not including the reserved numbers. If, in the too near approach of the said railroad line to the boundary of Mexico, the number of sections of land to which the company is entitled cannot be selected immediately on the line of said railroad, or in lieu of mineral lands excluded from this grant, a like quantity of unoccupied and unappropriated agricultural lands, in odd-numbered sections nearest the line of said railroad may be selected as above provided; and the word "mineral," where it occurs in this act, shall not be held to include iron or coal: *Provided, however,* That no public lands are hereby granted within the State of California further than twenty miles on each side of said road, except to make up deficiencies as aforesaid, and then not to exceed twenty miles from the lands originally granted. The term "ship's channel," as used in this bill, shall not be construed as conveying any greater right to said company to the water front of San Diego Bay than it may acquire by gift, grant, purchase, or otherwise, except the right of way, as herein granted: *And provided further,* That all such lands, so granted by this section to said company, which shall not be sold or otherwise disposed of, as provided in this act within three years after the completion of the entire road, shall be subject to settlement and pre-emption like other lands, at a price to be fixed by and paid to said company, not exceeding an average of two dollars and fifty cents per acre for all the lands herein granted.

SEC. 10. That when the route of said railroad and telegraph line shall pass through the lands of private persons, or where it may be necessary for said railroad company to take any lands belonging to private persons for any of the purposes herein mentioned necessary to said road, such right of way through or title to such lands shall be secured in accordance with the laws of the State or Territory in which they may be situated.

SEC. 11. That the Texas Pacific Railroad Company shall have power and authority to issue two kinds of bonds, secured by mortgage, namely: First, construction bonds; second, land bonds. Construction bonds shall be secured by mortgage, first, on all or any portion of the franchises, road-bed, or track of said railroad, and all the appurtenances thereto belonging, when constructed or in the course of construction, from a point at or near Marshall, to ship's channel, in the Bay of San Diego, in the State of California, as aforesaid. Land bonds shall be secured by mortgage, first, on all or any portion of the lands hereby granted in aid of the construction of said railroad as is provided for in this act; second, on lands acquired by any arrangement or purchase or terms of consolidation with any railroad company or companies to whom grants of land may have been made, or may hereafter be made, by any Congressional, State, or Territorial authority, or who may have purchased the same previous to any such arrangement or consolidation: *Provided,* That all the mortgages made and executed by said railroad company shall be filed and recorded in the Department of the Interior, which shall be a sufficient evidence of their legal execution, and shall confer all the rights and property of said company as therein expressed: *And provided also,* That the proceeds of the sales of the aforesaid construction and land bonds shall be applied only in the construction, operation, and equipment of the contemplated railroad line: *And provided further,* That said mortgage shall in no wise impair or affect any lien existing on the property of said company or companies at or before the time of such consolidation.

SEC. 12. That whenever the said company shall complete the first and each succeeding section of twenty consecutive miles of said railroad and put it in running order as a first-class road in all its appointments, it shall be the duty of the Secretary of the Interior to cause patents to be issued conveying to said company the number of sections of land opposite to and coterminous with said completed road to which it shall be entitled for each section so completed. Said company, within two years after the passage of this act, shall designate the general route of its said road, as near as may be, and shall file a map of the same in the Department of the Interior; and when the map is so filed, the Secretary

Limits, 10 miles beyond the limits of the land grant.

Provision as to lands not obtained by reason of the near approach of the railroad to the Mexican boundary.

"Mineral" not to include iron or coal.

Lands granted in California not further than 20 miles from the railroad, except, &c.

"Ship's channel" not to be construed as conveying special right to water front in San Diego Bay.

Lands granted and not sold or otherwise disposed of in three years to be subject to settlement, &c.

Right of way through lands of private persons to be secured in accordance with law.

Corporation authorized to issue construction bonds and land bonds, secured by mortgage.

Mortgage of road and franchises to secure "construction bonds."

Mortgage of grants and acquired lands to secure "land bonds."

All mortgages to be filed and recorded in the Department of the Interior.

Proceeds of sales of bonds to be applied only to construction, operation, and equipment of railroad.

As 20-mile sections of road are completed, patents for coterminous lands shall be issued.

General route to be designated within two years, and map filed.

Lands to be withdrawn from pre-emption, &c. Provisions of pre-emption and homestead acts extended to other lands.

Annual report, when and where to be made, and to state what.

Certificates of capital stock to be signed by the president and secretary.

Bonds and mortgages.

Bonds and interest payable in gold.

Limitation as to construction bonds, \$30,000 per mile.

Land bonds not to exceed \$2.50 per acre for all lands mortgaged.

Other railroad may connect.

No discrimination against any connecting roads.

Rates not to exceed the prices fixed by Congress on the Union and Central Pacific.

Iron or steel rails from American ore.

Corporation to commence construction of road simultaneously at San Diego and Marshall.

Fifty miles to be built within two years.

To be completed in ten years.

Upon failure, Congress may adopt measures

of the Interior, immediately thereafter, shall cause the lands within forty miles on each side of said designated route within the Territories, and twenty miles within the State of California, to be withdrawn from pre-emption, private entry, and sale: *Provided, however,* That the provisions of the act of September, eighteen hundred and forty-one, granting pre-emption rights, and the acts amendatory thereof, and of the act entitled, "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, and the amendments thereto, shall be, and the same are hereby, extended to all other lands of the United States on the line of said road when surveyed, except those hereby granted to said company.

SEC. 13. That the president of the company shall annually, by the first day of July, make a report and file it with the Secretary of the Interior, which report shall be under oath, exhibiting the financial situation of the company, the amount of money received and expended, and the number of miles of road constructed each year; and further, the names and residences of the stockholders, of the directors, and of all other officers of the company, the amount of stock subscribed, and the amount thereof actually paid in, a description of the lines of road surveyed and fixed upon for construction, the amount received from passengers and for freight, respectively, on the road, a statement of the expenses of said road and its fixtures, and a true statement of the indebtedness of said company and the various kinds thereof.

SEC. 14. That the certificates of the capital stock must be signed by the president and secretary, and attested by the seal of the company, and shall contain an extract from the proceedings of the board of directors fixing the amount thereof, as well as from this act, authorizing such issue. All the bonds and mortgages issued by said company must be signed by the president and secretary, and attested by the seal of said company, and shall contain an extract from the law authorizing them to be issued. The face value of said bonds shall be one thousand dollars in gold, and shall be redeemable at such times, and to bear such rate of interest, payable semi-annually in gold, as may be determined by the directors. The total value of the construction bonds to be issued shall not exceed thirty thousand dollars per mile of said railroad, and the total face value of the land bonds shall not exceed two dollars and fifty cents per acre for all lands mortgaged; the total amount of each to be determined by the board of directors.

SEC. 15. That all railroads constructed, or that may be hereafter constructed, to intersect said Texas Pacific Railroad, shall have a right to connect with that line; that no discrimination as regards charges for freight or passengers, or in any other matter, shall be made by said Texas Pacific Railroad Company against any of the said connecting roads; but that the same charges per mile as to passengers, and per ton per mile as to freight, passing from the said Texas Pacific Railroad over any of said connecting roads, or passing from any of said connecting roads over any part of said Texas Pacific Railroad, shall be made by said company as they make for freight and passengers over their own road; *Provided also,* That said connecting roads shall reciprocate said right of connection and equality of charges with said Texas Pacific Railroad; *And provided further,* That the rates charged for carrying passengers and freight, per mile, shall not exceed the prices which may be fixed by Congress for carrying passengers and freight on the Union Pacific and Central Pacific Railroads.

SEC. 16. That said road shall be constructed of iron or steel rails manufactured from American ore, except such as may have heretofore been contracted for by any railroad company which may be purchased or consolidated with by the company hereby incorporated, as provided by this act.

SEC. 17. That the said Texas Pacific Railroad Company shall commence the construction of its road simultaneously at San Diego, in the State of California, and from a point at or near Marshall, Texas, as hereinbefore described, and so prosecute the same as to have at least fifty consecutive miles of railroad from each of said points complete and in running order within two years after the passage of this act; and to so continue to construct each year thereafter a sufficient number of miles to secure the completion of the whole line from the aforesaid point on the eastern boundary of the State of Texas to the Bay of San Diego, in the State of California, as aforesaid, within ten years after the passage of this act; and upon failure to so complete it, Congress

may adopt such measures as it may deem necessary and proper to secure its speedy completion.

SEC. 18. That the President of the United States, upon the completion of the first section of twenty miles, shall appoint one commissioner, whose duty it shall be to examine the various sections of twenty miles as they shall be completed, and report thereon to him in writing; and if, from such report, he be satisfied that said company has fully completed each section of its road, as in this act provided, he shall direct the Secretary of the Interior to issue patents to said company for the lands it is entitled to under this act, as fast as each section of said road is completed.

SEC. 19. That the Texas Pacific Railroad Company shall be, and it is hereby, declared to be a military and post-road; and for the purpose of insuring the carrying of the mails, troops, munitions of war, supplies, and stores of the United States, no act of the company nor any law of any State or Territory shall impede, delay, or prevent the said company from performing its obligations to the United States in that regard: *Provided*, That said road shall be subject to the use of the United States for postal, military, and all other Governmental services, at fair and reasonable rates of compensation, not to exceed the price paid by private parties for the same kind of service, and the Government shall at all times have the preference in the use of the same for the purpose aforesaid.

SEC. 20. That it shall not be lawful for any of the directors, either in their individual capacity or as members of an incorporated or joint stock company, to make any contracts or agreements with the said Texas Pacific Railroad Company for the construction, equipment, or running of its road, or to have any interest therein; and all such contracts or agreements are hereby declared null and void; and all money or property received under such contracts or agreements may be recovered back for the benefit of the company by any stockholder.

SEC. 21. That any railroad company whose route lies across the route of the Texas Pacific Railroad may cross the same, and for the purpose of crossing shall have the right to acquire at the double minimum price all lands, whether of the United States or granted by this act, which shall be needed for a right of way two hundred feet wide through said lands, and for depots, stations, side-tracks, and other needful purposes, not exceeding for such purposes forty acres at any one station.

SEC. 22. That the New Orleans, Baton Rouge, and Vicksburg Railroad Company, chartered by the State of Louisiana, shall have the right to connect by the most eligible route to be selected by said company with the said Texas Pacific Railroad at its eastern terminus, and shall have the right of way through the public land to the same extent granted hereby to the said Texas Pacific Railroad Company; and in aid of its construction from New Orleans to Baton Rouge, thence by the way of Alexandria, in said State, to connect with the said Texas Pacific Railroad Company at its eastern terminus, there is hereby granted to said company, its successors and assigns, the same number of alternate sections of public lands per mile, in the State of Louisiana, as are by this act granted in the State of California, to said Texas Pacific Railroad Company; and said lands shall be withdrawn from the market, selected, and patents issued therefor, and opened for settlement and pre-emption, upon the same terms and in the same manner, and time as is provided for and required from said Texas Pacific Railroad Company, within said State of California: *Provided*, That said company shall complete the whole of said road within five years from the passage of this act.

SEC. 23. That, for the purpose of connecting the Texas Pacific Railroad with the city of San Francisco, the Southern Pacific Railroad Company of California is hereby authorized (subject to the laws of California) to construct a line of railroad from a point at or near Tehachapa Pass by way of Los Angeles, to the Texas Pacific Railroad at or near the Colorado River, with the same rights, grants, and privileges, and subject to the same limitations, restrictions, and conditions as were granted to said Southern Pacific Railroad Company of California, by the Act of July twenty-seven, eighteen hundred and sixty-six: *Provided*, however, That this section shall in no way affect or impair the rights, present or prospective, of the Atlantic and Pacific Railroad Company, or any other railroad company.

necessary to secure speedy completion.

President to appoint one commissioner to examine sections of twenty miles as completed.

Railroad declared to be a military post-road.

Transportation for the United States not to be impeded.

Fair and reasonable rates of compensation.

No directors to contract for constructing, &c., any part of the road.

Railroad companies may cross this road.

Mayhavelands, for right of way and for depots at a certain price.

New Orleans, Baton Rouge and Vicksburg Railroad Company may connect with this road.

Grant of right of way.

Grant of lands, to aid in its construction.

20 sections per mile in the State of Louisiana.

Lands to be withdrawn from market, etc.

Roads to be completed within five years.

Southern Pacific Railroad Company may construct a road to connect the Texas Pacific Railroad with San Francisco.

Proviso that right of Atlantic and Pacific Railroad Co. shall be in no way impaired.

ACT OF MAY 2, 1872.

17 Stat., 59.
1871, ch. 122,
vol. xvi. p. 573.

AN ACT supplementary to an act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the Construction of its Road, and for other purposes," approved March third, eighteen hundred and seventy-one.

Name changed from "Texas Pacific Railr'd Co." to "Texas and Pacific Rail'y Co." The rights, privileges, and franchises conferred.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the name, style, and title of the Texas Pacific Railroad Company shall hereafter be "The Texas and Pacific Railway Company;" and the said The Texas and Pacific Railway Company shall have, possess, and enjoy all the rights, privileges, and franchises heretofore conferred upon the said Texas Pacific Railroad Company.

May issue construction and land bonds.

Construction bonds not to exceed \$40,000 per mile. (See sec. 14 of prior act.)

Granted lands may be included in the mortgage to secure said construction bonds.

Land bonds, how secured.

SEC. 2. That the said The Texas and Pacific Railway Company shall have power and authority to issue the construction and land bonds authorized by the eleventh section of said act of incorporation, for such amounts, not exceeding forty thousand dollars per mile of said road, of construction bonds, as said company may deem needful to provide for the construction and equipment of its line, and to include in the mortgage or mortgages to secure said construction bonds all or any portion of the lands granted in aid of the construction of said railroad; and in the mortgage or mortgages to secure said land bonds, any portion of said lands not so used to secure the construction bonds aforesaid; and all or any portion of the lands acquired by the terms of consolidation lawfully authorized by the fourth section of said act of March third, eighteen hundred and seventy-one, with any railroad company or companies to whom grants of land may have been made, or may hereafter be made, by any Congressional, State, or Territorial authority, or who may have purchased the same previous to any such arrangement or consolidation, and within the time limited for the completion of the road, and all such lands of every description shall be subject to all limitations and conditions now by law existing in relation thereto, and as modified by this act; and this act shall not be construed to revive, enlarge, extend, or create any land grant whatever, beyond that heretofore granted by Congress, and which shall duly inure to said company upon compliance with the terms of this act in relation to the times fixed for completion of said railway, and all such mortgages shall be subject to all the conditions and limitations by law existing under this act and the acts to which it is supplementary in respect to such lands, and shall not be held to vest any title in the mortgage or create any lien on such lands, other than such company is or may become lawfully entitled to vest or create thereunder; but the amount of said land bonds shall not exceed two and a half dollars per acre for all lands covered by the mortgage or mortgages securing the same.

No land grant revived, enlarged, extended, or created by this act.

Amount of land bonds not to exceed, &c.

Mortgages to be filed, and recorded in the Department of the Interior.

Proceeds of bonds and stock, how only to be applied.

Standard of road and equipment to be same as required of the existing Pacific Railways.

Prior liens not affected.

The iron or steel rails to be made from American ore, except, &c.

Construction of road to be commenced where, and to be continued in what direction.

SEC. 3. That all the mortgages made and executed by said railroad company shall be filed and recorded in the Department of the Interior, which shall be a sufficient evidence of their legal execution: *Provided*, That the aforesaid bonds and the authorized capital stock, or the proceeds thereof, shall be applied only for the purpose of securing the construction, operation, and equipment of the contemplated railroad line, under lawful contracts with such parties, and on such terms and conditions as said company may deemed needful, and for the further purpose of purchase, consolidation, completion, equipment, and operating of the other roads, as contemplated by said act and specified therein, being a part of the aforesaid railroad line, and for the expenses necessary and incident to the works authorized thereby: *Provided, however*, That said road and its equipment shall be of the standard heretofore required by the United States Government for the existing Pacific Railway lines; *And provided further*, That said mortgage or mortgages shall in no wise impair or affect any lien existing on the property of said company or companies at or before the time of such consolidation.

SEC. 4. That said road shall be constructed of iron or steel rails manufactured from American ore, except such as may have been contracted for before consolidation by any railroad company which may be purchased by or consolidated with this company.

SEC. 5. That the said Texas and Pacific Railway Company shall commence the construction of its road at or near Marshall, Texas, and proceed with its construction, under the original act and this supplement, or in pursuance of the authority derived from any consolidation as aforesaid, westerly from a point near Marshall, and towards San Diego, in the State of California, on the line authorized by the orig-

inal act, and so prosecute the same as to have at least one hundred consecutive miles of railroad from said point complete and in running order within two years after the passage of this act; and so continue to construct, each year thereafter, a sufficient number of miles, not less than one hundred, to secure the completion of the whole line from the aforesaid point on the eastern boundary of the State of Texas to the bay of San Diego, in the State of California, as aforesaid, within ten years after the passage of this act; and said road from Marshall, Texas, throughout the length thereof, shall be of uniform gauge: *Provided, however,* That the said company shall commence the construction of said road from San Diego eastward within one year from the passage of this act, and construct, not less than ten miles before the expiration of the second year, and, after the second year, not less than twenty-five miles per annum in continuous line thereafter between San Diego and the Colorado River, until the junction is formed with the line from the east at the latter point or east thereof; and upon failure to so complete it, Congress may adopt such measures as it may deem necessary and proper to secure its speedy completion; and it shall also be lawful for said company to commence and prosecute the construction of its line from any other point or points on its line; but nothing in this act contained shall be so construed as to authorize the grant of any additional lands or subsidy, of any nature or kind whatsoever, on the part of the Government of the United States: *Provided,* That said Texas and Pacific Railway Company shall be, and it is hereby, authorized and required to construct, maintain, control, and operate a road between Marshall, Texas, and Shreveport, Louisiana, or control and operate any existing road between said points, of the same gauge as the said Texas and Pacific Railroad; and that all roads terminating at Shreveport shall have the right to make the same running connections, and shall be entitled to the same privileges, for the transaction of business in connection with the said Texas and Pacific Railway, as are granted to roads intersecting therewith: *Provided further,* That nothing herein shall be construed as changing the terminus of said Texas and Pacific Railway from Marshall as provided in the original act.

SEC. 6. That all acts or parts of acts inconsistent with this supplement be, and the same are hereby, repealed.

100 consecutive miles to be in running order within two years. 100 miles each year thereafter.

Time of completion, 10 years from May 2, 1872. Uniform gauge. Road from San Diego eastward, when and how to be built.

Upon failure, Congress may adopt measures necessary to secure speedy completion.

Road between Marshall and Shreveport to be controlled and operated by Texas and Pacific.

Repealing clause.

ACT OF MARCH 3, 1873.

AN ACT supplemental to an Act entitled "An Act to incorporate the Texas Pacific Railroad Company, and to aid in the Construction of its Road, and for other Purposes," approved March third, eighteen hundred and seventy-one.

17 Stat., 598. 1871, ch. 122, vol. XVI, p. 573.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the face value of all bonds hereafter issued by the Texas and Pacific Railroad [Railway] Company, under the provisions of an act approved March third, eighteen hundred and seventy-one, shall, at the option of the company, be either in gold, or other lawful money of the United States, bearing interest, at like option of the company, either in gold or other lawful money of the United States; and any mortgage heretofore executed by said company, securing bonds payable in any lawful money of the United States other than gold, and the bonds recited therein, and to secure which, said mortgage was given, are hereby legalized, and said mortgage and bonds shall have the same effect as though they had been authorized by the act to which this is a supplement. *Provided,* That in all respects the requirements of that law in regard to such mortgage and bonds have been fully complied with.

Face value of bonds hereafter issued by Texas and Pacific Railway Company may be in gold or other lawful money.

Former mortgages legalized if other requirements of law have been complied with.

ACT OF JUNE 22, 1874.

AN ACT supplementary to an act entitled "An act to incorporate the Texas Pacific Railroad Company, and to aid in the construction of its road, and for other purposes."

13 Stat., 197. 1871, ch. 122, vol. XVI, pp. 573, 579.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Texas and Pacific Railway Company is hereby empowered to secure, by one or more mortga-

Texas and Pacific Railway Company author

ized to secure construction bonds by new mortgages. ges upon the whole or any portion of its line, the construction-bonds heretofore authorized to be issued, and to cancel the mortgage now on record with the Secretary of the Interior so far as the same can be done without prejudice to existing rights, and to substitute therefor the mortgage or mortgages hereby authorized, which substituted mortgages shall expressly reserve all rights which may have been acquired under the existing mortgage: *Provided*, That the aggregate of the said bonds to be issued under and secured by said mortgage or mortgages shall not exceed the limits heretofore fixed by Congress; and said mortgages for the division east of Fort Worth shall embrace the roads and property of the Southern Pacific Railroad Company and of the Southern Trans-continental Railway Company, heretofore merged in and consolidated with the said Texas and Pacific Railway Company, under the authority and requirements of the laws of the State of Texas; and which roads so merged as aforesaid shall for that and all other purposes be deemed and taken to be a part of the said Texas and Pacific Railway, and shall hereafter be subject to all the provisions and limitations of the act of Congress incorporating said company and of the supplements thereto: *And provided further*, That nothing in this act shall be construed or have the effect to entitle said corporation to any other or further rights to public lands, or in any other respect as against the United States, than such as by law it is now entitled to.

To cancel mortgage on record with Secretary of the Interior.

To substitute mortgages authorized by this act.

Limit heretofore fixed not to be exceeded.

What new mortgages shall embrace.

Consolidated roads, how to be deemed.

No other or further rights granted.

REPORT
OF THE
GOVERNMENT DIRECTORS OF THE UNION PACIFIC RAILWAY.

Hon. JOHN W. NOBLE,
Secretary of the Interior:

SIR: The Government Directors of the Union Pacific Railway respectfully submit their report.

Though the operations of the Union Pacific Railway *system* for the year 1890 resulted in a decrease of the net earnings to the amount of \$1,417,962, we have to report that the physical condition of the property has been fairly well maintained, the equipment both of the main line and the auxiliary roads and branches largely increased, and it continues to afford an efficient and most important means for transportation in the States and Territories dependent upon its facilities.

That importance has been so frequently made known through the reports of committees of the several branches of Congress, and through the reports to your Department by the Government directors, that we do not deem it necessary to speak upon that subject further than to reiterate the often stated conclusion.

For the year 1890, as compared with 1889, the gross earnings of the Union Pacific Railway increased \$652,643, whilst the net earnings decreased \$1,011,920.

For the same period the gross earnings of all the roads composing the *system* increased \$3,379,648, whilst the net earnings decreased \$1,417,962.

For the first six months of 1891 the same state of facts is presented of decrease in net earnings both from the Union Pacific Railway and the system, though in the later months a tendency to improvement is to be remarked, especially upon the Oregon lines, and there is good reason to anticipate a better result for the year.

The causes of this diminution in the net earnings were mostly of a general character, common to all the railways of the West, and arose chiefly from the exceedingly low rates prevailing over the greater part of the territory covered by the system. The fact that the increase of about 3½ millions in gross earnings was effected at an increased expense in cost of operating and maintenance of about 5 millions renders the conclusion inevitable, that after making full allowance for all local and exceptional requirements for increased expenditures, a large portion of the business of the year was secured at rates involving absolute loss. However much the States and Territories reached by the system may be benefited by a competition tending to such results, the ultimate effect upon the financial stability of the corporation, if continued, can not be doubted.

The event of the year, to which we feel called upon to direct the attention of the Department, has been the financial embarrassment of the company brought about by conditions impairing the ability of the company to carry its large floating debt.

The gross floating debt of the company on the 31st of December, 1889, was \$20,161,000; and, although at times materially less during the year, it reached on the 31st of December, 1890, \$21,400,000. Of this amount about \$15,000,000 was the result of expenditures and advances in the construction of branch and tributary lines, or the purchase of stock in such lines, for the purpose of control, and was fully represented by securities of equivalent or greater value in the treasury of the company. But under the conditions of the money market in the autumn of 1890, brought about primarily through the embarrassment of large financial houses in London, the market for investment securities of all kinds, both in this country and in Europe, was seriously impaired, and the company was unable to dispose of them. A floating debt of such magnitude, however well represented or secured, is always to be deplored as subjecting the company to embarrassments from great monetary disturbances and must be frequently carried through temporary loans at rates of interest entirely incommensurate with the security offered.

The policy of the Union Pacific Railway Company in acquiring control of tributary lines, either through the purchase of stock or advances in aiding construction, or otherwise, has been frequently discussed.

We have no hesitation in saying that such a policy is absolutely necessary to the prosperity of the system. It may be doubted if the company could have maintained its solvency except through such a policy. The time was when the Union Pacific commanded at full and remunerative rates the whole business of the country tributary to it. But year by year the territory has been invaded by other railroad systems, and at the present time not only the transcontinental traffic, but that of every State and Territory through which it runs is divided between many competitors. To have maintained a policy of passive submission would have been equivalent to a voluntary assent to the bankruptcy of the system. However much the policy of securing auxiliary or tributary lines has at times embarrassed the company, and whilst the terms and conditions upon which some have been acquired might be open to discussion, the policy as a whole has been and must continue to be an imperative necessity.

We believe that as a whole it has heretofore been wisely, conservatively and honestly carried out with a single and disinterested purpose, and that the Union Pacific Railway proper, upon which the lien of the Government rests, has been through that policy made vastly more valuable and the security of the Government enhanced. Every mile of road constructed and purchased has brought additional tribute to the trunk line.

In the year 1890 about 120 miles of new road, exclusive of sidings, had been added to the system. In November there was under construction in Utah about 120 miles from Milford to Pioche, upon which nearly \$4,000,000 has been expended. In Oregon and Washington about \$1,500,000 had been expended on the Portland and Puget Sound Railroad, including the bridge across the Columbia River. All this work was immediately suspended on the first suggestion of financial danger, and has not as yet been resumed. Every effort was made to retrench expenditure in every department, and it was hoped that no extraordinary measures would become necessary to protect its credit.

A crisis in the financial affairs of the company was, however, reached

in August, 1891. It became impracticable, if not impossible, to carry the large floating debt any longer through the banks and trust companies, and it became necessary to fund it, at least for a period sufficient to enable the company to market its securities, most of which were already hypothecated in the temporary loans. Measures were adopted at the meeting held on August 16 providing for the issue of notes to the amount of \$24,000,000, running for 3 years, at 6 per cent., which have been offered to the creditors at 92½ per cent., and have at this date, we are informed, been taken or agreed to be taken by creditors and others to the amount of about two-thirds, thus relieving the finances of the company from any present embarrassment. To secure these notes the company has pledged all its stock and bonds in branch and auxiliary lines, and in its extensive coal and express properties; in fact every available asset.

The deposit of securities has been made with Drexel, Morgan & Co., as trustees, and the sale or disposition of them and the payment of the notes are to be under the control and direction of a committee of five, to be composed of three creditors and two directors of the company, with power to add to their number.

A resolution was unanimously passed at the meeting requesting the committee to add one Government director to their number, but we are not advised that any such action has been taken. Both the letter and spirit of section 13 of the act of July 1, 1862, would seem to require such representation upon the committee.

The Government directors have, after careful consideration, reluctantly concurred in the course of action adopted, as presenting apparently the only means of relieving the company, but we can not but regret the temporary character of the provision for relief, and the additional fact that it has become necessary to hypothecate not only the bonds but the stocks representing ownership or control in the extensive coal properties and the companies of the entire tributary system. The security for the notes is so ample and the character and financial ability of the committee so high that we can not anticipate any unfavorable result; but in a degree it hazards the integrity of the system, and under possible unfavorable conditions for the sale of the bonds within the time, beyond the control of the directors or the committee, might ultimately lead to its disintegration and the loss of its most valuable tributaries.

The conditions prevailing at this time emphasize the recommendation so often made by Congressional committees, and by Government directors. No one can come into a close knowledge of the Union Pacific Railway system without being impressed with the necessity for relief from the exactions and limitations now imposed by law. It is vitally essential that this company should be freed from these to enable it to maintain itself in fair competition with other systems not so hampered and restrained. The whole financial system of the Union Pacific Railway in its relations with auxiliary or tributary roads is one of expedients rendered necessary by the limitations of various statutes having in view the security of the Government lien. But the complex and involved methods arising from branch-guaranteed collateral trust and indorsed bonds, has cost the company a vast amount of money fairly stated in millions, which might have been in a large degree saved, if it had been permitted to issue its own direct obligation, secured by direct mortgage upon its own property. We can not perceive that the Government is in any way benefited by these limitations, or that the security of its own lien would be in the least impaired by their removal. Their

only effect seems to be to add to the burden of the company in ordinary financial administration, and to that extent to impair its ability to meet the demands upon it.

Whatever may have been true at an earlier period of its history, the Union Pacific, either as a transcontinental or an interstate system, no longer occupies an exceptional position. Whatever exclusive advantages it once had are now shared in common with not one, but many railroad systems. Except as appertaining to the direct security of the lien and its payment, legislation should not harass or burden it.

A sound public policy should, in our judgment, prompt the Government as a creditor to make such provision as to time and date of payment of the principal, and the rate of interest to be paid, as may be within the ability of the company to meet, and just and equitable under all the circumstances, but having done this the Union Pacific should be as free and untrammelled as other lines to develop and extend its system, in fact should be freed from every restriction, except those which the law imposes upon all railways similarly engaged in interstate traffic.

Under all the conditions surrounding this property at present, and the prospective conditions of the future, so far as they may be foreseen, we do not believe that the position of the Government as a creditor will in any degree be improved by delays in such adjustment; whilst, on the other hand, the ability of the company to discharge its obligations to the Government and the public would be materially enhanced, and ultimate payment more certainly secured, by such legislation as will permit of a consolidation and unification of the system, and an extension of the security of the Government, either directly or indirectly, to the whole property.

The nearly concurrent maturity, in the near future, of the underlying first-mortgage bonds, of the debt to the Government, and of the collateral notes recently issued, aggregating over \$100,000,000, is a fact not to be overlooked or disregarded. It presents possible conditions which a wise foresight should amply provide for, and in abundant season.

Respectfully submitted.

GEO. E. LEIGHTON,
JOHN F. PLUMMER,
JESSE SPALDING,
RUFUS B. BULLOCK,
JOSEPH W. PADDOCK,
Government Directors.

SEPTEMBER 15, 1891.

REPORT

OF THE

ACTING GOVERNOR OF ARIZONA.

EXECUTIVE DEPARTMENT OF ARIZONA,
Phoenix, September 25, 1891.

SIR: In compliance with your letter of instructions dated July 28, 1891, I have the honor to submit the following report of the affairs, progress, and development of the Territory of Arizona for the year ending June 30, 1891.

POPULATION.

The Eleventh Census, taken last year, placed the population of Arizona at a trifle less than 60,000 souls, exclusive of Indians and others living on reservations. From a careful revision of the work of the enumerators it is evident that 65,000 would have been more nearly correct.

There being no immigration bureau in the Territory nor source of statistical information as to the increase in population since the last report from this office was submitted, the estimate can only be approximated; there is good reason to believe, however, that the increase has been considerable, and that the population of Arizona will number 70,000 people before the close of the current year. There has been quite an influx from Kansas during the past few months, the immigration being attracted by the great agricultural advantages of the southern valleys of the Territory. These people, who have come for the purpose of making permanent homes, will add largely to our prosperity and fixed population.

While mining is still the leading wealth-producing industry of Arizona, agriculture will, no doubt, soon rank first in importance, and the transient prospectors and migrating miners will be largely outnumbered by men of families, making homes and engaging in pastoral pursuits, this without any diminution of mining interests; to the contrary, they are increasing and more prosperous than ever before.

As previously reported in regard to the character and nationality of the population of Arizona, Americans are very largely in the majority, and they have come from every locality and corner of the nation. Our pioneers were brave men and true, who firmly planted the banner of civilization on a remote and dangerous frontier, and made the rapid growth of this young empire in the western world possible.

Many of the original pioneers of Arizona still survive, having outlived the hardships of early frontier life and cruel war with treacherous Apaches. They live in comfort and honor, and view with complacent pride the fruition of their labors in the spectacle of a magnificent state forming around them, rich in commerce, natural resources, and

social advantages; a sturdy commonwealth, with a population equal in moral worth and mental strength to any in the nation. Bordering on the Republic of Mexico and having been, previous to the "Gadsen purchase," a part of that country, it is not strange that Arizona has quite a number of Mexicans among her people. They are, however, not so numerous as in our sister Territory, New Mexico. They are mostly naturalized citizens, law-abiding, in sympathy with and obedient to American laws and customs, and interested in the education and elevation of their race. There are comparatively few Chinese in the Territory, and although objectionable, they are not sufficiently numerous to disturb the labor question. As the Territory of Utah forms the northern boundary of Arizona, it is natural that we should draw a considerable portion of our population from that source. It is estimated that there are at least 12,000 Mormons in the Territory, engaged principally in agriculture and grazing. The population of Arizona, taken as a whole, will compare favorably with that of any other subdivision of the country.

TAXABLE PROPERTY.

The following tabulated statement shows the kind and quantity of taxable property, and valuation thereof, in the Territory, according to the report of the Territorial Board of Equalization for the current year:

Counties.	Acres.	Value.	Value of improvements.	Value of city and town lots.	Value of improvements.
Apache	1,950,076.00	\$461,143.14	\$544,549.20	\$31,837.30	\$101,436.50
Cochise	87,887.00	90,753.00	319,959.00	77,575.00	217,508.00
Coconino	462,827.50	229,216.17	14,060.00	68,404.00	75,296.00
Graham	32,846.00	349,291.30	335,703.00	33,570.00	72,116.00
Gila	9,552.00	328,825.00	112,313.00	26,487.00	79,955.00
Mohave	670.00	17,565.00	111,835.00	8,235.00	49,980.00
Maricopa	236,927.00	2,072,815.00	251,434.00	1,127,830.00	554,535.00
Pima	200,044.00	386,974.00	189,330.00	307,047.00	711,858.00
Pinal	46,703.00	308,106.00	272,870.00	58,084.00	146,000.00
Yavapai	325,209.97	299,320.89	149,151.00	203,547.70	325,380.00
Yuma	11,924.00	58,111.50	1,010.00	29,635.00	13,360.00
Total	3,364,668.00+	4,602,121.00	2,302,214.20	1,972,252.00	2,347,424.50

Counties.	Horses.	Value.	Mules.	Value.	Cattle.	Value.	Goats.	Value.	Hogs.	Value.
Apache	5,210	\$119,830.00	90	\$2,250	74,132	\$630,122.00	174	\$174.00	414	\$1,242.00
Cochise	3,321	68,106.00	232	7,085	95,850	756,992.25	215	215.00	250	762.30
Coconino	5,028	140,844.00	30	1,620	55,062	405,825.00	47	59.00	138	833.00
Graham	3,416	82,344.60	167	6,325	66,730	585,718.50	442	464.00	371	1,121.92
Gila	3,558	85,083.00	183	5,925	58,645	496,470.45	443	450.00	256	788.75
Mohave	1,404	35,671.52	25	700	29,360	252,155.00	1,300	1,300.00	49	166.80
Maricopa	5,602	170,501.25	236	10,085	26,509	254,350.95	380	380.00	2,048	6,077.25
Pima	5,725	117,552.08	307	8,076	121,377	960,892.12	167	206.00	588	1,737.40
Pinal	2,723	63,970.00	251	7,477	48,565	403,551.78	.....	.....	422	1,280.40
Yavapai	11,685	298,528.00	146	6,365	142,460	1,205,057.70	300	331.50	830	2,537.50
Yuma	240	5,738.00	90	3,065	2,250	19,461.60	.....	.....	94	282.00
Total	47,912	1,188,168.45	1,757	58,973	720,940	5,970,597.35	3,468	3,579.50	5,460	16,829.32

Counties.	Sheep.	Value.	Asses.	Value.	Miles of railway.	Value.	All other property.	Total valuation.
Apache	105,684	\$21,460.00	92	\$344.00	111.69	\$558,450.00	\$161,450.00	\$2,634,288.14
Cochise	3,601	6,600.00	.....	.....	171.00	1,108,625.77	327,588.00	2,981,769.32
Coconino	134,899	201,898.00	34	939.00	126.67	578,867.00	258,114.81	1,975,975.98
Graham	2,620	5,252.18	219	1,817.10	45.00	161,397.99	52,676.35	1,687,797.94
Gila	2,100	3,780.00	307	2,530.00	.....	.....	166,626.00	1,309,233.20
Mohave	3,750	6,800.00	136	1,151.75	114.377	574,885.00	87,135.00	1,147,580.07
Maricopa	29,118	57,496.50	99	806.00	94.57	596,727.79	606,826.00	5,709,864.74
Pima	1,472	2,643.60	87	596.00	125.65	778,781.15	615,586.00	4,081,279.85
Pinal	2,215	4,116.00	144	1,171.95	79.79	521,761.41	179,586.00	1,967,974.54
Yavapai	5,269	10,551.00	355	2,482.00	133.84	720,620.00	810,265.00	4,034,137.99
Yuma .....	.....	.....	25	187.50	80.00	544,891.91	64,822.00	740,564.51
Total	288,727	320,597.28	1,498	12,025.30	1,083.00	6,145,008.02	3,330,676.36	28,270,466.28

According to the foregoing tables the Territory has the following assessed taxable property :

3,364,668 acres of taxable land.....	\$4, 602, 121. 00
Improvements thereon.....	2, 302. 214. 20
City and town lots.....	1, 972, 252. 00
Improvements thereon.....	2, 347, 424. 50
720,940 cattle.....	5, 970, 597. 35
288,727 sheep.....	320, 597. 28
47,912 horses.....	1, 188, 168. 45
1,757 mules.....	58, 973. 00
1,498 asses.....	12, 025. 30
3,460 goats.....	3, 579. 50
5,460 hogs.....	16, 829. 32
1,083 miles of railroad.....	6, 145, 008. 02
All other property.....	3, 330, 676. 36
	\$28, 270, 466. 28

The average valuation is :

Land per acre.....	\$1. 37
Cattle per head.....	8. 28
Horses per head.....	24. 79
Sheep per head.....	1. 11
Mules per head.....	33. 36
Asses per head.....	8. 03
Goats per head.....	1. 03
Hogs per head.....	3. 82
Railroads per mile.....	5, 674. 06

The valuation of improvements and other property is correspondingly low. The rate of taxation varies in the different counties, but the average rate in the Territory for all purposes is \$3.28 + on \$100. The total assessed valuation of the taxable property in the Territory as given above is \$28,270,466.28. There is unquestionably \$70,000,000 of taxable property in Arizona, and fully that amount would be stated if proper assessments and valuations were had. The present system of low valuations and high rates is injurious and misleading and calculated to create false impressions with intending immigrants and investors. Notwithstanding the heavy debt of the Territory, our financial condition would be good if our property were properly assessed and valued, and we would not be continually required to explain why the rate of taxation in Arizona is higher than the rate of interest required for money on call loans in some parts of the East. The truth is, not over one-third of our property is assessed, and very little property except real estate is rated at over one-half its actual value.

It is conceded by all who are acquainted with the facts that if all the property of Arizona were assessed, and at its full value, the rate of taxation would be as low here as in many of the most prosperous States.

It is very necessary for the Territorial welfare that these facts be understood and appreciated throughout the country.

The total assessed valuation of the Territory has increased nearly a quarter of a million of dollars since last year, notwithstanding a reduction of over \$470,000 in railroad valuations.

FINANCIAL CONDITION OF THE TERRITORY.

The following official statements show the bonded and floating indebtedness of the Territory, life of the bonds, amount of annual interest, and

rate of interest on bonds and warrants; also the county and municipal indebtedness, valuation of property, rate of taxation, etc.:

Territorial bonds and floating indebtedness.

Names of the bonds.	Date issued.	Amount.	Rate of interest.	Annual interest.	When mature.
			<i>Per cent.</i>		
Territorial prison bonds.....	Mar. 1, 1879	\$15,000	10	\$1,500	15 years; first issue.
Do	Mar. 1, 1880	15,000	10	1,500	15 years; second issue.
Gillette-Tiger Mine wagon road	Apr. 1, 1879	20,000	10	2,000	15 years.
Florence-Globe City wagon road.	do	10,000	10	1,000	Do.
Tucson-Globe City wagon road.	do	10,000	10	1,000	Do.
Agua Fria-Camp Verde wagon road.	Aug. 1, 1879	10,000	10	1,000	Do.
Yuma-Ehrenberg wagon road...	May 1, 1881	10,000	10	1,000	Do.
Territorial redemption.....	June 1, 1883	214,000	7	14,980	*\$260,000, issued 20 years; \$46,000 redeemed to date.
Insane asylum	Mar. 9, 1885	100,000	7	7,000	20 years; part in 10 years if surplus in fund.
Wagon road bridge.....	Nov. 1, 1885	12,000	8	960	15 years.
Gila bridge.....	May 15, 1885	15,000	8	1,200	Do.
Arizona University	Jan. 1, 1887	25,000	7	1,750	20 years; part in 10 years, if surplus in fund.
Territorial funding.....	Jan. 15, 1888	150,000	6	9,000	25 years.
Total.....		666,000		43,890	

* Provisions for proportionate redemption after 5 years.

General fund warrants outstanding September 12, 1891.....	\$190,030.53
Interest on general fund warrants at 10 per cent. accumulated so far this year.....	15,360.80
Territorial indebtedness, bonded	606,000.00
Interest thereon	43,890.00
Floating.....	190,030.53
Interest	15,360.80
Total	855,281.33

*County indebtedness.**

Counties.	Debt, floating and bonded.	Rate of taxation for all property.	Counties.	Debt, floating and bonded.	Rate of taxation for all property.
Apache	\$149,000.00	\$3.00	Pima	\$334,485.57	\$2.89
Cochise	155,000.00	3.50	Pinal	175,723.27	3.21
Coconino.....	153,000.00	2.85	Yavapai.....	381,500.00	3.00
Gila	38,581.55	3.50	Yuma.....	112,000.00	4.85
Graham	200,315.05	3.25	Total	2,175,605.44	
Mohave	120,000.00	3.30			
Maricopa.....	317,000.00	2.75			

* Total valuation of each county is given in table of taxable property.

Indebtedness and valuation of incorporated cities.

Cities.	Indebtedness.	Valuation.
Phoenix.....	\$52,000.00	\$1,820,000.00
Tucson	32,000.00	1,600,000.00
Prescott	*90,000.00	*1,600,000.00
Tombstone	14,989.00	370,553.95
Total	188,989.00	4,790,553.95

* Approximated.

The average rate of interest throughout the Territory for all purposes is \$3.28; 71 cents of this tax is applied for Territorial purposes, and is insufficient to defray the expenses of government, pay interest, and provide for proper redemptions. It is also believed that a sufficient tax levy is not made in the different counties. The reason for this, however, as stated by responsible parties, is, that the increase of property and values in the Territory will soon provide for payment of the indebtedness and maintenance of the government without increase of taxation.

The total indebtedness of the Territory, counties and municipalities, is reliably stated as follows:

Territory (bonded and floating)	\$855,281.33
Counties (bonded and floating)	2,175,605.44
Cities (bonded and floating)	188,989.00
Interest on county and city debt (approximated after allowing for periodical redemptions)	180,127.00
Total	3,400,002.77

The Territorial indebtedness, as above, amounts to about 12 per cent. of the property valuation, or a trifle over \$56 per capita of our people according to the census. This would not be the fact if the property were properly assessed; to the contrary, with a property valuation of \$70,000,000, to which we are entitled, our debt would be inconsiderable.

A law was passed by Congress in June, 1890, entitled "An act approving with amendments the funding act of Arizona." The act provided, under legal limitations and restrictions, for funding all the floating indebtedness, Territorial, county, municipal, and school, and such of the bonded indebtedness as can be lawfully redeemed, at a rate of interest not to exceed 5 per cent. per annum, the bonds to run 50 years, although they may be redeemable after 20 years; the Territory, under the act, assuming the obligations of the counties and municipalities, and all securities that can be funded made Territorial, the Territory being protected by equalized taxation.

The Territorial legislature at its last session, by enactment, made the life of the bonds 50 years instead of providing for redemption after 20 years as the act of Congress authorizes, and it was believed that such action would make them more salable.

The principal advantages of funding the Territorial debt under this law are the reduction of interest and placing the affairs of government—county, Territorial, and municipal—for the future upon a cash basis. A great saving would accrue to the Territory from the placing of these bonds, and as the Territory has never repudiated its obligations nor defaulted interest, its bonds being all held at a premium, it would seem that these bonds ought to be in demand, although the rate of interest is low. As the interest on the floating debt (outstanding warrants) is in nearly every instance 10 per cent., the saving on the floating debt, when the same is funded, will be 5 per cent.; but as the average rate of interest paid by the Territory on all of its indebtedness, Territorial, county, and otherwise, is 8 per cent., the computation of saving should be made on that basis.

The board of loan commissioners of the Territory, through Governor John N. Irwin, its chairman, has been making strenuous efforts to negotiate these funding bonds, and the governor has visited the money centers of the East for that purpose, and he is now in New York endeavoring by every means in his power to promote the Territorial interests in this matter; so far, however, he has not met with success, and it is possible that further legislation may be necessary by Congress

before the bonds can be placed, although I believe them desirable for investors now.

That the financial condition of the Territory be relieved is very important, as will be seen by an analysis of the foregoing statements, and should further legislation on this subject by Congress be necessary, I earnestly recommend that it be had.

SETTLEMENT OF LANDS.

In reference to this subject full information is contained in the following reports by United States land offices of the Territory:

UNITED STATES LAND OFFICE,
Prescott, Ariz., September 12, 1891.

Hon. N. O. MURPHY,
Acting Governor, Phoenix, Ariz.:

DEAR SIR: Complying with your request of the 7th instant, we make the following statement of the business done in this office during the fiscal year ending June 30, 1891:

The preëmption and timber-culture acts, as you are aware, were repealed in March last, consequently there was but little done under either of these laws. There were, however, a few sundries or filings under each, leaving the record about as follows:

	Acres.
27 coal-land filings, about.....	4,000.00
97 preëmption filings, embracing about	15,000.00
4 original timber-culture entries	480.00
80 homestead entries.....	12,261.97
35 final homestead entries.....	5,479.99
21 cash entries	2,120.01
2 original desert-land entries.....	120.00
1 final desert-land entry	420.00
1,650 quarter sections, railroad selections.....	263,923.46
16 final mineral-land entries	306.00
Total.....	303,931.43

Respectfully submitted.

T. J. BUTLER,
Receiver.

UNITED STATES LAND OFFICE,
Tucson, Ariz., September 18, 1891.

Hon. N. O. MURPHY,
Acting Governor, Phoenix, Ariz.:

DEAR SIR: I have the honor to transmit herewith, as per your request, 7th instant, a full and complete record of the agricultural and mineral entries made in this office, for the year ending June 30, 1891.

Original entries.	No.	Acres.	Final entries.	No.	Acres.
Homestead.....	162	22,619.03	Homestead.....	96	14,106.54
Desert land	139	36,734.93	Desert land	80	28,880.86
Preëmptions	93	12,224.50	Cash.....	103	12,651.39
Timber culture	51	7,224.50	Timber culture	2	240.57
Mining applications.....	21	342.35	Mineral.....	16	267.57
Total.....	466	79,120.81	Total.....	259	56,146.93

RECAPITULATION.

	No.	Acres.
Original entries.....	466	79,120.81
Final entries.....	279	56,146.93
Total	745	135,267.74

The foregoing does not include some 10,000 acres of land passed under special letter of the Department, because of ex-Receiver Smith's defalcations.

Very respectfully,

HERBERT BROWN,
Register.

In addition to the foregoing, the following information furnished by the United States officers of the Gila land district is instructive and interesting:

The Gila land district, of which the United States land office is situated in Tucson, is comprised of the counties of Cochise, Pima, Pinal, and Gila, and portions of Maricopa, Graham, Apache, and Yuma. The line of demarkation between the Gila and Prescott land districts is the first correction line north, or the first standard parallel north of the base line of Arizona which passes through the confluence of the Gila and Salt rivers, easterly and westerly, commencing on the Colorado, 72 miles in an air line north of Yuma, and runs directly east, passing north of Phoenix, 12 miles south of Wickenburg and 20 miles north of Globe, and strikes the New Mexican line 42 miles north of Clifton, Ariz. The area of this district comprises 45,318 square miles, or nearly 30,000,000 of acres, exceeding in size the great State of Pennsylvania 318 square miles, or 203,520 acres; but notwithstanding the enormous size of the Gila district; it is less than the Prescott district by 23,000 square miles, or 14,720,000 acres.

A casual glance at the foregoing shows Arizona to be not an estate, but an empire, capable of great and unlimited possibilities when its vast resources, now practically untouched, shall have been developed. Inclusive of the lands contained in the Indian and military reservations the approximate amount of land entered at the office in this district amounts to but one-thirtieth of the whole area. The room for profitable investment in Arizona is equalled by no other State or Territory in the Union. The little that has been done is indicative of what can be done, and sooner or later will be done. The deserts of Arizona will disappear under the rose bush and the dread of the Apache under the sod. The world will yet marvel at the greatness of Arizona. Let the following figures be carefully considered:

Approximate quantity of public land unsurveyed, exclusive of military and Indian reservations, *subject to settlement* under existing laws, July 1, 1891, in each county in the Gila land district, Arizona:

County.	Acres.	County.	Acres.
Apache	27,760	Gila	410,020
Graham	2,230,440	Maricopa	3,600,900
Cochise	2,501,280	Yuma	4,165,790
Pima	5,065,119		
Pinal	2,220,466	Total	20,221,775

Approximate quantity of public lands subject to entry or filing July 1, 1891, exclusive of military or Indian reservations in each county in the Gila land district, Arizona, is as follows:

County.	Acres.	County.	Acres.
Apache	13,440	Gila	40,780
Graham	620,630	Maricopa	377,680
Cochise	1,327,416	Yuma	526,810
Pima	1,204,000		
Pinal	762,494	Total	4,873,250

The following is the approximate quantity of public lands entered under the several land laws of the United States in Gila land district:

County.	Acres.	County.	Acres.
Apache	138,240	Maricopa	414,720
Cochise	69,864	Yuma	115,200
Pima	184,320		
Pinal	100,000	Total	1,032,344
Gila	10,000		

RAILROADS—COMMERCE AND PROGRESS.

The following railroads are now being operated in the Territory:

	Miles.
Southern Pacific of Arizona	383
Atlantic and Pacific	393
New Mexico and Arizona	87
Prescott and Arizona Central	73
Arizona and New Mexico	41
Arizona and Southeastern	36
Central Arizona	35
Maricopa and Phoenix	34
Total	1,082

The Southern Pacific passes along the southern part of the Territory from Yuma, on the Colorado River, to the eastern boundary of Cochise County, passing through the counties of Yuma, Maricopa, Pinal, Pima, and Cochise.

The Atlantic and Pacific crosses north of the center of the Territory near the thirty-fifth parallel and passes through the counties of Apache, Yavapai, and Mohave.

The New Mexico and Arizona runs from Benson on the Southern Pacific, in Cochise County, to Nogales, in the same county, at the Mexican line.

The Prescott and Arizona Central runs from Prescott Junction on the Atlantic and Pacific to Prescott and is all in Yavapai County.

The Arizona and New Mexico runs from Clifton, in Graham County, to the Southern Pacific at Lordsburg, N. Mex.

The Arizona and Southeastern runs from Bisbee, Cochise County, to Fairbanks, on the New Mexico and Arizona, in the same county.

The Maricopa and Phoenix runs from Maricopa, Pinal County, on the Southern Pacific, to Phoenix, Maricopa County.

The Central Arizona runs from Flagstaff, on the Atlantic and Pacific, southward for 35 miles in the pine forest, and is projected to extend to Globe, in Gila County, and possibly to Phoenix, Florence, Tucson, and Calabasas, in southern Arizona. This road was formerly known as the Mineral Belt, and is not now being operated except for logging purposes by the Arizona Lumber Company. The extension of the road as projected would be of the utmost advantage to the Territory. Railway communication from north to south is absolutely necessary to the proper welfare and progress of Arizona. Several north and south roads are being projected and the people of the Territory are very desirous for their success.

What was said in my former report on this subject is also applicable now.

The physical formation of the country is such that with the present transportation facilities an interchange of home products is barred.

The Atlantic and Pacific traverses an upland plain (Colorado plateau)

at an average elevation through Arizona of over 5,000 feet, and the Southern Pacific crosses the valleys and agricultural sections of the southwest.

One variety of products is tributary to the Atlantic and Pacific, another variety to the Southern Pacific, and it is absolutely necessary to the welfare of the country that they be interchanged. The people of the north, who are engaged principally in the production of the precious metals and lumber and in stock raising, are forced to go abroad for their agricultural supplies, flour, hay, barley, etc., and pay a double price for them, because they have no road to the rich valleys of the south, where grain is stored unsold for want of a market, and the people of the southern valleys could, with the aid of a railroad, get lumber and other timber, coal, etc., in the north for about one half what it now costs them. The consequences are that the natural resources of this part of the country can only be partially developed. Mines can not be worked and made productive which, with cheaper supplies, would yield riches, and the other industries of the neighborhood are comparatively retarded.

To induce the construction of the much needed north and south lines, the sixteenth legislature of Arizona passed the following very liberal act exempting railroads constructed under its provisions from taxation for twenty years:

No. 41.

AN ACT to encourage the construction of railroads within the Territory of Arizona:

Be it enacted by the Legislative Assembly of the Territory of Arizona:

SECTION 1. That, for the purpose of encouraging the building and construction of railroads within the Territory of Arizona, by any person or persons, association or corporation, all railroads built without subsidies and in accordance with the provisions of this act shall be exempt from taxation for the period of twenty years from the passage of this act. And any person or persons, association or corporation, wishing to avail themselves of the provisions of this act, shall file their intentions with the secretary of the Territory within six (6) months after the passage of this act, setting forth the initial and terminal points of the proposed railroad and probable length of the same, and the actual construction of said proposed railroad shall commence within six (6) months from the filing of such notice of intention, and no railroad or any part thereof shall be exempt from taxation as provided by this act unless the entire road shall be built, equipped, and in running order from the initial and terminal points, as filed with the secretary of the Territory, as provided by this act.

SEC. 2. As soon as any road is built, and before it is open to the public for carrying of freight or passengers, the constructors or owners of said road shall notify the supervisors of the county or counties through which such road is built, that such road is complete and ready for business; and it shall be the duty of such supervisors to appoint a competent engineer or engineers, who shall inspect such road within such county, and if upon his or their report the road is declared to be completed, the board of supervisors may declare the road open to the public, and the franchise, right of way, road bed, bridges, culverts, rolling stock, station grounds, depots, water tanks, coal bins, turn tables, roundhouses, machine shops, station houses, telegraph lines, and the personal property used in the operation of such railway shall be exempt from taxation for twenty years after the passage of this act.

SEC. 3. This act shall not apply to any road that is not a public carrier and not built for public use, nor to any road not supplied with first-class accommodations to the traveling public, and to no road not built at the rate of fifty (50) miles per annum, or work done in the construction of said road equivalent to the completion of fifty (50) miles per annum of said road from the time of commencement until completed; provided, that any road built under the provisions of this act shall run one train per day each way along said line for the accommodation of passengers and freight from and between the terminal points; and provided further that the benefits of this act shall not apply to the shifting or change of road bed of any road now built, equipped, and in running order within the Territory of Arizona.

SEC. 4. All acts or parts of acts in conflict with the provisions of this act are hereby repealed.

SEC. 5. This act shall take effect and be in force from and after its passage.

Approved March 16, 1891.

Several reliable companies have signified their intention to build on account of the above act, and it is now believed that Arizona will soon be afforded the relief so much desired.

Improved transportation facilities will stimulate every industry of the Territory, and I believe involves the most important conditions precedent to wealth, population, and independent self-government.

AGRICULTURE AND IRRIGATION.

Arizona's arable lands, for depth and richness of soil and for quality, variety, and quantity of products, can not be excelled if equaled anywhere in the Union.

The following tables compiled from authentic information will give a fair idea of the progress of agricultural development in the Territory, although only those localities giving particular attention to agriculture and irrigation are presented.

MARICOPA COUNTY.

Maricopa County is the most important agricultural district of Arizona and at present has irrigating canals and acreage of reclaimed land as follows:

Canals.	Length.	Reclaimed land.	Canals.	Length.	Reclaimed land.
	<i>Miles.</i>	<i>Acres.</i>		<i>Miles.</i>	<i>Acres.</i>
Arizona.....	41	50,000	Utah.....	6	10,000
Grand.....	27	-----	Farmers'.....	5	21,000
Maricopa.....	26	45,000	Total.....	181	182,000
Salt River Valley.....	26	-----	Increase current year.....	-----	20,000
Tempe.....	19	25,000			
Highland.....	22	18,000			
Mesa.....	9	13,000			202,000

The foregoing canals are in the Salt River Valley and have been operated for several years, although their extent and capacity are being enlarged with the increased settlement of the lands under them.

Canals on the Gila, in Maricopa County.

Canals.	Length.	Reclaimed land.	Canals.	Length.	Reclaimed land.
	<i>Miles.</i>	<i>Acres.</i>		<i>Miles.</i>	<i>Acres.</i>
Buckeye.....	30	20,000	Gila River.....	8	5,000
Palmer.....	22	12,000	Total.....	86	48,000
Enterprise.....	12	6,000			
Citrus.....	14	5,000			

While these canals are already in operation, another, on a very large scale and more important than all the others in operation on the Gila, is now being constructed by the Gila Bend Reservoir and Irrigation Company, and of which the following is a description:

The dam of this company is located on the Gila River, about 22 miles north of Gila Bend station, on the Southern Pacific Railroad; its line of canal is down the east side of the Gila River until near Gila Bend station, when it turns to the west, as does also the Gila River, and runs parallel with the railroad for about 10 miles, when it turns south, crossing the railroad and then continuing in a southwesterly direction, covering one of the most fertile and beautiful valleys in Arizona, having an area of several hundred thousand acres.

In speaking of the Gila and Salt River Valleys, the United States Senate committee on irrigation said that "An analysis of the soil showed it to be richer than the Nile earth." Hon. J. De Barth Shorb, probably the highest authority in California, says that these valleys "are superior to any in the known world."

Active work is now in progress on the dam, and it is expected to have water out by January, 1892.

When completed the canal will carry water enough to irrigate from 175,000 to 200,000 acres of land; there being ample water in the river at all seasons of the year for that amount of land.

Oranges, lemons, figs, raisins, and all the other fruits raised in southern California can be raised under this canal, and the seasons are fully a month earlier than in southern California.

Those interested in the promotion of this canal will set to fruits fully 10,000 acres during the coming year.

Another very important irrigation enterprise has been inaugurated about 35 miles northwest of Phoenix, in Maricopa County, on the Agua Fria, by which it is proposed to reclaim at least 100,000 acres of land. The property is owned by the Agua Fria Land and Water Company, and the prospects are favorable to the early and successful operation of the projected reservoir and canal.

There are 55,000 acres bearing crops this year under the Arizona, Grand, Maricopa, and Salt River Valley canals, as follows:

	Acres.
Alfalfa.....	13,000
Orchards and vineyards	5,000
Grain.....	37,000

and there has been raised under these four canals this year fully 40,000,000 pounds of grain and 200,000,000 pounds of alfalfa. Of the 5,000 acres in fruit 500 acres are in oranges.

A great deal of the land under the Tempe canal, on the south side of the river, has been cultivated in wheat and barley together. The yield of wheat under the Tempe canal this year was nearly 3,000,000 pounds and the yield of barley 3,500,000 pounds. There are about 10,000 acres in alfalfa. There were 30 tons of peaches raised at Tempe, or rather under the canal, and 15 tons of apricots, and the grain averaged about 1,000 pounds to the acre.

The Mesa canal has under it 10,000 acres in cultivation, of which 3,000 acres are in alfalfa, 3,500 acres in vines and fruit trees, and 3,500 acres in grain. Grapes average $2\frac{1}{2}$ tons to the acre, and grain about 18 sacks to the acre. The Mesa canal is being extended and its capacity being increased to supply the newly occupied lands under it. Under the Highland canal there are now 8,000 acres in cultivation, 2,500 acres in alfalfa, 50 acres in fruit, and 5,450 acres in grain.

All the canals in the valley were more or less injured by the heavy floods last winter and spring, but were quickly repaired and ready to supply the settlers. The fruit culture of Maricopa County was given a decided impetus during the past year by the operation of drying and packing establishments at Tempe and in the neighborhood of Phoenix. The country surrounding Tempe on the south side of the Salt River has attracted a great deal of attention from immigrants of late, and a number of colonists from Kansas have settled in that neighborhood; and although the advantages for agriculture in that section are superior, no benefits can be claimed over other localities in the magnificent Salt River Valley.

No data has been furnished this office as to the crops of the Indians

in this country for this year, but a statement of their productions for last year makes a creditable showing for them, which will no doubt be equaled if not exceeded in 1891.

The following is a statement of the Indian crops for 1890:

Acreage cultivated.....	4,000
Wheat produced..... pounds..	4,000,000
Corn produced..... do.....	12,000
Barley produced..... do.....	85,000
On Papago Reservation:	
Wire fence made..... rods..	7,840
Hay made..... tons..	150
Wood sold..... cords..	1,200
On Pima and Maricopa Reservation:	
Horses.....	4,000
Cattle.....	3,500

As my report of last year was very full in regard to agriculture and irrigation it is only necessary at this time to note such conspicuous changes as have occurred within the year.

Fruit culture will evidently soon take precedence as the most prominent industry in the agricultural sections of the Territory, and the following statement by a prominent writer is becoming generally accepted as true:

There are few countries that possess a soil and climate so well suited to the business. Already farmers are discovering that there is more money in fruit than in the raising of grain and grasses. The rapid growth and the marvelous yield is a prime factor in inducing people to engage in this pursuit. In the Gila and Salt River Valleys the product is ripe and ready for market fully a month before that of southern California. Fruit-raisers can readily see the advantages which this gives them. Fruit from these valleys can be laid down in the seaboard cities earlier than from any other section of the Union. This means ready sale and high price.

The yield is phenomenal. The fig, which succeeds in so few places in the United States, seems to be indigenous to the valleys of southern Arizona and grows as strong and thrifty as the cottonwood tree. It yields two and sometimes three crops a year. This seems hardly credible, but it is an actual fact. The fruit is large, rich, and luscious, and has only to be tasted to be appreciated. Grape cuttings from California will bear in 18 months, and two crops a year is not uncommon. During the present season apricots have been shipped from the Salt River Valley to Los Angeles a month before the fruit was ripe in that section.

One of the most profitable fruits grown in the United States is the raisin grape. Few localities are adapted to its cultivation. The curing of the fruit requires a dry climate, and this Arizona possesses. There are only two or three places in California suited for raisin-making, and even in them the conditions are not altogether satisfactory. The largest raisin producer in the United States has recently visited southern Arizona and, after making a thorough examination, declares that there is no part of the United States equal to it for raisin-making. He secured an extensive tract of land which he will plant next season. When it is remembered that over 90 per cent. of all the raisins consumed in this country are imported, the opportunities here presented will be fully understood.

Besides the orange and lemon, the olive and the banana thrive in Maricopa County.

Grape-picking begins 40 days earlier in the Salt River Valley than in California, and the first raisins packed anywhere in the United States this season have been packed in this country. Both figs and raisins are now being packed for export. One party alone has a fig farm containing 120 acres, and there are many other smaller farms where figs are raised in abundance. The fruit when prepared for shipment presents as fine an appearance as any to be found in the world. It is large, rich, and juicy, and as good as it looks. Raisins are also being dried and packed in large quantities. They are excellent in quality, and can be grown and prepared for market at the minimum expense on account of superior climatic advantages. Of the 5,000 acres and upwards of fruit in Maricopa County, figs and rasins lead in quantity, although oranges,

apricots, peaches, pears, plums, blackberries, and strawberries are abundantly produced. The Salt River Valley is very much in need of more fruit packing and canning establishments, which will soon come with the increased production and cheapened transportation. Maricopa County, with her immense area of marvelously productive land, her abundance of water, and variety of products, can successfully compete with the most favored agricultural districts of the country.

Bee keeping is one of the most profitable industries in the Salt River Valley. The climate is well adapted for the business, and the blossoms of the alfalfa plant, the mesquite tree, and the sunflower are excellent honey producers. The bees are always healthy, and require but little attention. The product is equal in quality and flavor to any made on the coast. It is white and clear, and readily commands the maximum price. There is a good market all over the Territory, and a great deal is now being exported. Eight carloads have been exported this year.

YUMA COUNTY.

The conditions of this county in reference to agriculture and irrigation is most comprehensively presented in the following paper. It is proper to state, however, that several of the more important canal enterprises named were seriously injured by the very disastrous floods on the lower Gila last winter and spring; some of the preliminary work being entirely destroyed. Other enterprises have taken their place, however, and it is by no means certain that the original plans of all will not be carried out. Several new irrigation enterprises have been projected during the year in the neighborhood of the village of Yuma, some of which are in an advanced state of construction, and one—notably the Yuma Pumping and Irrigation company—is in active operation. This company is irrigating a large tract of land from the Colorado River by means of powerful pumps. It is also proposed by a wealthy syndicate to build a very large canal having its head at the Colorado River just below Yuma to reclaim vast bodies of land in southern Arizona and Mexico. There is certainly an unlimited water supply in this great river that may be utilized either by pumps or gravitation.

The general conditions and agricultural advantages of Yuma County as herein presented will apply to all the agricultural region of southern Arizona:

Of the several large irrigation canals operating in Yuma County, but one is completed. The remainder, while only partially finished, are nevertheless in a position to meet the requirements of many acres of bottom and valley lands, with the promise of extending their range of usefulness to many times as much again. All head at some point or other upon the Gila River (except the new enterprises named above), and each is confined entirely within the environs of the valley bearing the same name. The aggregate cost is very great, but proportionate returns upon the invested capital will for the first time become apparent during the coming 12 months. Canal building is of comparatively recent origin in the country. A few years since the fertile valleys were almost literally destitute of human inhabitants, while to-day it is safe to say that every acre of valley land along the line of the canals has been filed upon, not to mention considerable mesa land taken up along the line of their projected extensions.

The various works, commencing at Oatman Cañon and extending westerly at intervals to within a few miles of the Colorado River, do not, of course, cover all the arable land in the lower Gila Valley. With no Territorial laws upon the subject of irrigation and ownership of water, excepting the statute that riparian doctrine shall not be recognized, and the prior locator shall hold against all others, it followed naturally that the first comers were the first served. Of the few available sites for canal headings situated upon either side of the river, such as seemed likely to prove the cheapest and most convenient during the periodic seasons of low water, were taken up, leaving those that remained of little value until the time when water can be stored in sufficient quantities to render them of practical consequence.

The names of the most prominent water ways, together with the length, carrying capacity, estimated cost, and number of acres tributary to each, are given herewith.

	Length.	Capacity.	Estimated cost.	Acres reclaimable.
	<i>Miles.</i>	<i>Inches.</i>		
Mohawk.....	35	11,000	\$150,000	40,000
Redondo.....	5	600	8,000	1,500
Farmers.....	13	5,000	15,000	10,000
South Gila.....	22	8,000	45,000	12,000
Purdy.....	10	9,000	25,000	7,000
Contreras.....	7	3,000	9,000	2,000
Saunders.....	10	5,000	35,000	2,000
Araby.....	8½	3,500	10,000	2,500
Toltec.....	3	30,000	15,000	.....
Total.....	120½	77,100	337,000	81,000

In the event of the completion of the above-described works in accordance with the original plans of the projectors, the total length would reach 241 miles, reclaiming 267,000 acres of bottom, valley, and mesa land, at an estimated cost of \$1,318,900. The "duty" of water is not constant, but varies according to the locality. The quantity used per acre under the lower Gila Valley canals is rated at about one-third of an inch. It should be explained that but little of the soil has been irrigated earlier than 18 months ago, and, being virgin soil, requires more water than will be necessary during the coming seasons. For this reason it is fair to assume that the duty per inch will be materially increased. In California an inch will irrigate from 4 to 12 acres, and it is not only possible, but it is also likely, that the wasteful custom of applying more water to the soil than is actually needed, in vogue among the majority of the Yuma County farmers, may have much to do with the apparent deficiency.

It may be stated incidentally that by irrigation the fertilization of land fluctuates according to the nature and quality of the silty matter deposited upon it by the water, and this, it is estimated, is from 30 to 100 per cent. Both the Gila and the Colorado are especially rich in such matter, and therefore the constant fertilization effected through the operating canals renders any further enrichment of the soil superfluous, useless, and unnecessary.

PRODUCTS OF THE COUNTY.

Fruit culture has so far been prosecuted upon a limited scale, but enough has been learned from experimental tests to demonstrate the positive feasibility of not only producing an excellent quality of the most profitable fruits, but also the ability to raise them for market from three to six weeks earlier than any section of California.

The orange, lemon, and lime, finding soil and climate congenial, yield in abundance large, clean-skinned, and exceedingly luscious fruit. They color handsomely, contain the requisite acidity and sweetness, and are very juicy.

The warm sunshine of the spring, summer, and autumn days causes the fruit in Yuma to mature early, and gives a delicious sweetness, flavor, and color to the orange, lime, lemon, and other citrus fruits which they can not attain on the coast of the Pacific, where fogs dampen the fruit, mildew is produced, and dust coats both leaf and fruit.

It is undeniable that nowhere upon the globe can a spot be found more favorable for the growth of citrus fruits than Yuma County.

The fig and pomegranate offers a character of fruit that almost stamps them as indigenous. The latter is not recognized to any great extent as yet, but it will certainly become an important factor in horticulture when its economic qualities are better known. As to the fig the most desirable variety has yet to be determined. The true "White Smyrna" would probably prove the best, and that its yield would be prodigious goes without saying, for the tree will bear three crops annually. This assertion is based upon actual productive results of the "Mediterranean White" fig, that is known not to be the true Smyrna.

The grape seizes upon what is proffered to it and becomes hardy, thrifty, and adaptable. The choice naturally inclines to the earliest for table purposes. What those varieties should be is in process of experiment upon a scale that will soon solve the question, but it may be said that all kinds mature from 3 to 4 weeks before they do in California. They attain great size, cluster tightly on the bunches, are firm and highly colored, and possess exquisite flavor. Heavy wines and brandies of a superexcellent quality can be made, but with light wines the reverse is true, for

everything, apparently, goes to saccharine. For ripening wines the climatic conditions are admirable. A quantity of common white wine, costing 45 cents a gallon, was brought here by water years ago, and on being found unsalable was placed in cellars and its history almost forgotten. Nine years later the wine was brought to light, when it was discovered that it resembled brown sherry, rich in bouquet, smooth as oil, and delicious to the taste. It was carefully drawn from the casks, bottled, and sold at \$2.50 per bottle.

The olive grows luxuriantly, and in the future promises to become a most profitable investment. Whatever are its characteristics elsewhere, here it requires water and cultivation—the more the better.

The plum can easily be raised from the seed. It fruits early, though so far the product does not commend itself particularly for table use, but as a stock upon which to engraft prunes, or even superior varieties of plums, it is everything to be desired. An experiment in this line with the best prune in California shows a growth of 23 inches in 40 days from the insertion of the graft.

The date has passed beyond conjecture. The plant produces magnificently, and its cultivation will be prosecuted more extensively this winter than ever before. The soil is in every way suitable, and with occasional cultivation and intelligent irrigation a quick and early growth is assured.

Apricots and peaches have been tested. They mature rapidly, bear choice fruit, and are always healthy, giving flattering indications of future success.

As facilities increase other fruit trees will be introduced, and with the same care that is bestowed upon them elsewhere will, so soon as they become acclimated, come to a yield materially in advance of the place from whence they come. The field is too large to admit of extended comments at this time, but it may suffice to refer briefly to certain other products, which may in time equal if not surpass fruit growing as a commercial proposition; as, for example, cotton, wild hemp, ramie, sugarcane, sugar beets, etc.

Cotton has been tried from time to time for years with varying but always satisfactory results, and even then without care. If watered regularly it becomes a large bush, and if properly pruned a tree, being in flower, boll, and cotton all the year round. These bushes and trees have in instances borne steadily for 14 years. The staple of course diminishes in course of time, but at 10 years it is not inferior to the average staple of western India.

Wild hemp is a textile plant indigenous to the country. It grows freely and luxuriantly to a great height, often averaging from 15 to 17 feet. It has a long, strong fiber, and is frequently worked into nets and fishing lines by the Yuma Indians. Convulsive attempts have been made to utilize this plant, with the practical result of fixing its value among the fibers used in the manufacture of cordage at about \$160 per ton of 2,000 pounds. After proper bleaching and manipulation a beautiful fiber has been produced and manufactured into colored fabrics, taking the dye and retaining the elasticity and luster exactly as well as the fabrics of true flax and ramie. It seeds itself annually, and, immediately following the overflowing of the Colorado River, takes possession of every nook, corner, and open area, to the exclusion of everything else. It covers not less 100 square miles in an unbroken stretch, commencing near the boundary line of the Gadsden Purchase, and extending northward along the river to Hardy's crossing of the Colorado at a point above where the rising tides of the Gulf of California forces back the flow of the Colorado River proper.

The fibrous plant ramie has been given a partial trial. The soil, on analysis, was found to contain all the essential properties to render the most favorable results, but the absence of water, together with injudiciously planting the roots too late, retarded the growth. Enough data was obtained, however, to warrant the belief that this will eventually become one of our most important industries.

Sugar cane has been fairly tested with Sonora cane. The growth was surprisingly great, and the percentage of juice much increased over the yield at the place from which it was originally brought. A superior quality of "panocha" and sirup were manufactured, the prices realized leaving handsome margins for profit. The capriciousness of the water supply, as in the case of ramie, dissolved the industry, and it has not since been revived.

The sugar beet promises better results for the future than many of the products already mentioned as prominent in the same direction. Samples not fully matured polarized 17 per cent. With proper cultivation the percentage can be raised to from 20 to 25, and, besides, will harvest two crops each year.

Wheat does splendidly, but complete data is not at hand from which to compute the average yield. In one instance, however, 483 pounds seeded to 20 acres about 9 miles east of Yuma, on the Gila River, returned 52,750 pounds after having been irrigated five times. This was sold in San Francisco, bringing 5 cents per cental over every kind then in the market. The grain is remarkable for its plump berry-like appearance. The winter and spring are warm enough to insure a vigorous growth, and cool enough in April and May to allow the heads to fill out without shriveling.

It is so perfect as to sell for seed, and, so far as known, is proof against rust. Two crops are raised annually. Barley also does well and will produce two crops, the first yielding from 35 to 40 bushels of barley and the second a large amount of hay.

Corn is produced in great quantity, yields enormously, and can be grown the year round. The "Cocopah" corn is noted for its sweetness, plumpness, earliness, and for its firm and solid grains. Five weeks after planting roasting ears are plentiful. This variety will command a ready sale at higher prices than any other kind.

Alfalfa will cut from five to seven times at an average of $2\frac{1}{2}$ tons to the acre. Eight acres, but one year old, have this year yielded 74 tons, with more cuttings yet to be had. The hay brings \$10 per ton. (This price is paid for the limited amount sold at Yuma.)

Sorghum, raised for feed, is both valuable and prolific. It frequently reaches 15 feet in height, yields from 15 to 20 tons per acre, and worth \$15 per ton. Several crops can be harvested annually.

Vegetables, kitchen and garden stuff, melons, etc., grow all the year round in unlimited quantity and excellent quality. Some time since a Gila valley farmer planted 15 pounds of Irish potatoes on one piece of bottom land that had been overflowed, from which he harvested over 700 pounds, and it is believed, has rarely, if ever, been excelled. The sweet potato produces enormously, and equals the choicest brought from California.

Peanuts mature rapidly and abundantly, yielding a nut both plump and toothsome.

Wherever there is sufficient moisture the natural flora abounds in profusion and variety. They are of rare beauty and delicious fragrance, the bulbous plants particularly. The lily surpasses the famous "Japan." It has been claimed by experts that at no distant period opium will be manufactured from the poppy, and attar from the rose; both flowers thrive vigorously. There are but few trees capable of adorning the surrounding of the lovely modern home that can not be successfully grown.

Every plant, vine, or tree mentioned in the foregoing list has been actually proven adaptable to our soil and climate. Many others have been omitted through lack of space. But there seems to be no doubt that time will demonstrate our ability to profitably raise all the semitropic and most of the tropical and temperate productions.

PINAL COUNTY.

No particular changes have been reported in the agricultural interests of this county during the year.

There are two irrigation districts in Pinal County, one tributary to the Gila River around Florence, the county seat, the other supplied by the San Pedro, in the south-eastern part of the county. The canals of the county are as follows:

Name.	Length.	Acres.	Name.	Length.	Acres.
	<i>Miles.</i>			<i>Miles.</i>	
Moore.....	3	300	Pat Holland.....	7	1,000
McClellan.....	3	300	Alamo Aramilla.....	7	1,000
The Swiss.....	2	200	Brady.....	4	1,000
Sharp.....	3	160	Adamsville.....	4	1,000
Stiles.....	4	300	White.....	3	200
Brash.....	4	400	Walker and Dempsey.....	3	300
Florence.....	43	60,000			
Montezuma.....	6	15,000	Total.....	96	67,160

All the above ditches are private property, except the Florence, Montezuma, and Aramilla, which are owned by incorporated companies.

There are 3 private ditches on the Gila above Riverside and below San Pedro, as follows:

Name.	Length.	Acres.
	<i>Miles.</i>	
Shields.....	$2\frac{1}{4}$	480
Winkleman.....	$1\frac{1}{4}$	480
Brannaman & Co.....	$1\frac{1}{4}$	820
Total.....	$5\frac{1}{4}$	1,250

On the San Pedro, west side, and in their order upstream, are the following ditches:

Name.	Length.	Acres.	Name.	Length.	Acres
	<i>Miles.</i>			<i>Miles.</i>	
Lattan	1 $\frac{1}{2}$	80	Pusch	2	640
Harrington	1 $\frac{3}{4}$	480	Dodson	2	320
Swingle	2	480	Cook	1 $\frac{1}{2}$	200
Waterman No. 1	1 $\frac{1}{2}$	320	Brown	1 $\frac{1}{4}$	160
Waterman No. 2	1 $\frac{1}{2}$	320			
Bates	1 $\frac{1}{2}$	160	Total	16	3,160

These are all private ditches. About half the land covered by the above ditches, except the Florence, is in actual cultivation.

The Florence Canal emerges from the river at a rocky point about 1 $\frac{1}{2}$ miles below the cañon known as the Buttes. Fifteen miles of laterals and service ditches are constructed. The main canal has a capacity equal to a flow of 400 cubic feet per second, and is so constructed that it can be easily enlarged and its capacity increased. A large storage reservoir has been constructed, about 15 miles south of Florence, at a cost of \$100,000, and has a storage capacity of 8,000,000,000 gallons of water. There is a large catchment basin tributary to the reservoir, so that with little trouble or expense the reservoir can be filled at least once, and possibly twice, a year independently of the river supply. There are under cultivation under this canal more than 6,000 acres.

The soil and productions of the land in Pinal County are practically the same as in Maricopa County.

GRAHAM COUNTY.

The irrigation district of this county lies in the valley of the Gila River, and, as will be seen by the following tables, agricultural interests are prosperous and have not materially changed since last year.

IRRIGATING CANALS IN THE VICINITY OF STAFFORD.

Name.	Length.	Acres irrigated.	Under this ditch were grown last year—					
			Alfalfa.	Grain.	Corn.	Vegetables,	Orchard.	Vine.
	<i>Miles.</i>							
Sunflower	2	400	175	.....	60	2	1	.....
Graham	4	500	100	200	40	20	3	.....
Union	8	1,200	300	100	100	20	10	5
Brancho of Montezuma	10	800	400	90	120	10	20	4
Total	24	2,900	975	390	320	52	34	9

CANALS OF CURTIS AND VICINITY.

Oregon	5	1,200	50	400	200	50	10	.....
Curtis	5	400	50	200	100	20	20	8
Kempton	3	400	100	200	50	10	30	10
Justran	2	200	.....	50	10	.....	.....	.....
Matthews	4	400	100	300	100	5	5	5
Dodge	4	200	50	200	50	20	20	20
Smithville	6	400	200	200	200	5	15	5
Darby	3	200	50	50	100	2	5	5
Total	36	3,600	700	1,700	910	117	115	53

IRRIGATING CANALS NEAR SOLOMONVILLE.

Brown	2 $\frac{1}{2}$	150	40	40	60	3	1	.....
Mejia	2	500	.....	320	.....	.....	.....	.....
Gonzales	2	200	.....	100	100	.....	.....	.....
Michelena	5	600	6	400	100	.....	1	.....
Z. Gonzales	4	800	.....	400	100	.....	.....	.....
Total	15 $\frac{1}{2}$	2,250	46	1,260	360	3	2	.....

It will be seen from these tables that in some cases the area of small grain and corn is larger than the whole area of land irrigated by a canal. This is because two crops follow each other on the same ground, two crops being produced in one season.

PIMA COUNTY.

This county has heretofore given more attention to mining and grazing than to agriculture, and the cultivation of the soil is comparatively a young industry in this locality. According to the last report the agricultural products of Pima County for the previous year were stated as follows :

There are in all 12,000 fruit trees in bearing, producing the best of fruit, full in size and delicious in flavor. There are 3,000 grapevines in bearing with 1,500 cuttings one year old. The grapes come into bearing in 3 years from the planting of the cutting and in two years from the planting of the rooted vines.

The culture of fruit in this county is an entirely new enterprise, and from the success attained by the experiments made bids fair to become one of the chief industries of this section.

In the valley of the Santa Cruz, from Calabasas to Tucson, there are under cultivation about 3,000 acres, yielding—

5,628 tons of hay	\$67, 547
854,000 pounds corn	12, 675
1,374,000 pounds of wheat and barley	20, 601
300,000 pounds potatoes	6, 000
380,000 pounds beans	8, 400
300,000 pounds vegetables	15, 000
26,000 pounds red pepper	1, 680
Total	131, 903

On the Rillito Creek east of Tucson 500 acres of land are in cultivation, producing—

850 tons of hay	\$10, 200
265,000 pounds of barley	3, 975
80,000 pounds of beans	2, 400
100,000 pounds of potatoes	2, 000
Total	18, 575

At Crittenden, Reddington, and other points, lands are cultivated to some extent with the same results as the reports above. There are thirty-six ditches of a total length of 52 miles used in irrigating these lands. The lands produce two crops a year—sowing grain in December and January, and corn, beans, and potatoes in July and August. Harvesting hay and grain begins in May and June, and other crops in October, November, and December, except alfalfa hay, which is cut each month from April to September. During the months of October, December, and January alfalfa is pastured, it keeping green and growing slowly during these months.

During the year the Santa Cruz Water Storage Company and the Santa Cruz Valley Land Company have started enterprises which will undoubtedly assure to Pima County agricultural development in the early future many times greater than it now has.

Cochise and Gila counties, although principally engaged in mining and grazing, do more or less farming, and the same is true of Apache, Yavapai, and Mojave counties. In Apache County the valley of the Little Colorado embraces nearly all of the irrigating and agricultural interests, and they are quite extensive and profitable. In Yavapai County most of the farming is confined to the valleys of the Verde, and Augua Fria, although the higher valleys, notably Kirkland Valley, Peoples' Valley, Skull Valley, and the basin of Granite Creek produce hay and grain liberally, and also all kinds of orchard fruits.

A very large ditch has been built this year in the Verde Valley, by which it is proposed to irrigate about 8,000 acres of new land. Large irrigation enterprises have also been started in Big Chino and Lonesome valleys, Yavapai County.

STOCK RAISING.

The assessment rolls as reported by the Territorial board of equalization states the number of stock in the Territory as follows:

Cattle	720,940	Goats	3,468
Sheep	288,727	Mules	1,757
Horses	47,912	Asses	1,498
Hogs	5,460		

The total valuation being placed at \$7,570,768.90, or an average valuation per head as follows:

Cattle	\$8.28	Goats	\$1.03
Sheep	1.11	Mules	33.56
Horses	24.79	Asses	8.03
Hogs	3.82		

It is believed that the above figures do not represent much more than half of the stock in the Territory, and in some cases not half, yet they are official, taken from the assessment rolls and are probably as nearly correct as are the assessment figures of other kinds of property in Arizona. (The financial condition of the Territory would look better if assessments were closer.)

The conditions for stock raising in Arizona are exceedingly favorable, and it can be safely asserted without fear of successful contradiction that the percentage of increase is greater and percentage of loss by disease, lack of food, severity of climate, or for any other reason, is less than in any other part of the country.

The climate of Arizona is not surpassed, if equaled, in the known world for the successful breeding of cattle. Its vast area, embracing mountain, mesa, and plain, gives great diversity, and yet neither the cold of one section nor the heat of the other is sufficient to interfere with constant and continuous growth or certainty of rearing the young, whether born in summer or winter.

The rainfall on all the mountain ranges is usually very abundant, and on the more northern and highly elevated mountain ranges snow falls to considerable depth, supplying pure water on the ranges below as well as fresh and nutritious feed until supplemented by the summer rains.

The lower valleys in the southern part of the Territory depend for water and for grass upon the summer rains, which are usually sufficient to insure good grazing, although this year it is reported that the rains have been very light on the southern plains and that the stock is not looking as well as usual.

It is estimated that 300,000 cattle and 2,000 horses have been shipped from the Territory during the year. The shipments of hogs and wool have not been reported, although they no doubt will reach a very considerable figure.

MINING.

Mining has always been the foremost wealth-producing industry of Arizona, and the great mineral deposits of our mountains have been demonstrated to be practically limitless. Mining has been very active during the past year, and it is probable that the metal exports for 1891, if they could be definitely stated, would exceed in value those of any previous year in the Territory's history.

As we have no Territorial bureau for the collection and dissemination of statistical information on this subject (the office of the Territorial geologist having been abolished by legislative enactment), it is impossible to furnish reliable data in detail as to the progress of the mining interests. The most conspicuous producers of the Territory of copper, at this time, are the copper mines of Bisbee, in Cochise County; of Globe, in Gila County; the United Verde copper mines, at Jerome, in Yavapai County, and the mines of the Arizona Copper Company, at Clifton, Graham County.

The principal gold producers are the mines of the Harqua Hala district, in Yuma County; the Congress, Crowned King, and Hill Side mines, in Yavapai County, and the Mammoth mine, of Pinal County.

Silver is being produced liberally in every mining county in Arizona; notably at Tombstone, Cochise County; Harshaw, Pima County; the Peck and Tiger districts, Yavapai County, and the Vekol, in Pinal County. The anticipated favorable legislation by Congress on the silver question will no doubt stimulate silver production in the Territory very materially.

While it is useless to attempt to particularize upon the numerous new mining enterprises being projected, some of which are ready for operation, a few of the most important may be mentioned.

The great metal company of Phelps, Dodge & Co., of New York, has expended at least \$1,000,000 upon mining property and improvements in Yavapai County, and extensive works have been erected by this company at Big Bug, Senator, and Copper Basin, consisting of smelting and milling plants for the reduction of copper, silver and gold ore, and the manufacture of sulphuric acid, narrow-gauge railways, tramways, etc.

The Tiger Company, in the Bradshaw Mountains, is developing extensively and putting up expensive works on the famous Tiger mine.

The Yuma Copper Company, in Maricopa County; the Reymert Company, in Pinal County, and many new companies in Pima County are erecting works preparatory to extensive operations.

It is impossible from the data at hand to render a comprehensive statement of all the mines being successfully operated in the Territory, but everywhere in the mining districts activity prevails.

In Mohave County the mining interests are especially prosperous. The following is a statement of the mineral productions of Arizona for the year ending June 30, 1891, approximated as nearly as possible:

Mineral production of Arizona.

Counties.	Copper in pounds.	Gold.	Silver.	Total in gold and silver.
Mohave.....		\$200,000	\$300,000	\$500,000
Yavapai.....	3,000,000	500,000	175,000	675,000
Yuma.....		200,000	30,000	230,000
Maricopa.....		40,000	585	40,585
Pima.....		100,000	750,000	850,000
Pinal.....		200,000	205,000	405,000
Cochise.....	9,500,000	57,955	200,000	257,955
Graham.....	10,000,000	10,000	3,000	13,000
Gila.....	7,000,000	5,000	20,000	25,000
Other mines.....	500,000			
Total.....	30,000,000	1,312,955	1,683,585	2,996,540
Returns from smelting and express companies not included above.		300,265	325,467	625,732
Copper.....				4,200,000
				7,791,272

ONYX.

During the past year very valuable deposits of superior onyx have been discovered in Arizona, the most notable being in the Big Bug district, Yavapai County, and on Cave Creek, Maricopa County. The quality of the onyx has been declared first class by competent experts; the quantity discovered is great, and from the statement of reliable authorities it is probable that the Arizona product will soon take first place in the onyx markets of the country.

SANDSTONE.

The sandstone quarries of Coconino County, near Flagstaff, are furnishing large quantities of first-class building stone to both Eastern and Western markets.

The red and gray sandstone of Arizona quarries is exciting the attention of builders wherever it has been introduced on account of its superior quality, beauty, resistance to heat, &c. The supply is practically limitless, and notwithstanding the distance from populous markets, the quarrying and shipment of this stone has become a growing and profitable industry. Yavapai County has a large and valuable deposit of very valuable building stone near Prescott.

FORESTS AND THE PRODUCTION OF LUMBER.

The pine forests of northern and central Arizona cover an area of about 2,700 square miles, or approximately 1,750,000 acres. Detached bodies of timber are found in various parts of the Territory at altitudes above 5,000 feet, but do not exist in large enough quantities to make them of any special commercial value, except fuel. In the larger forests on the San Francisco range the pine trees run from the sapling size up to four feet in diameter. Common saw-timber runs from 12 to 36 inches in diameter usually, the logs averaging about four to the 1,000 feet of lumber.

Arizona has an ample timber supply for the home consumption of a large population for many years. The price of common lumber varies from \$15 to \$40 for 1,000 feet, according to locality. The excessive price is on account of expensive transportation to localities remote from the source of supply; this will be remedied by the construction of railroads.

The principal kinds of timber used for fuel are pine, oak, juniper, and mesquite, and the supply is usually bountiful in all populated parts of the Territory. The principal shipping point for lumber is Flagstaff, on the Atlantic and Pacific Railroad, in northern Arizona. In this connection I submit the following communication from Hon. D. M. Riordan, president of the Arizona Lumber Company at Flagstaff, whose information and reliability on this subject can not be questioned:

In response to yours of the 17th, which is just at hand, I beg leave to say (without having before me all the data necessary to complete accuracy), my belief is that the pine-timber resources of this Territory will be quite sufficient for any population we will have, near or remote, even with wasteful and improvident methods, for at least 150 years; but if properly conserved, they can be made to furnish all the timber needed for wise use by all the people this Territory can support, for all time to come.

I base this upon my knowledge of the timber to this particular forest. The increase by growth is to-day vastly in excess of the quantity being removed.

Conservative judges and estimators of timber who have had greater experience than I, place the quantity of timber on the Colorado plateau at about 8,000 million feet. This includes the Coconino forest, but does not include the forests of the White Mountains nor the timber in the Santa Catalinas, Santa Ritas, nor in any other of the timber covered regions of the Territory.

My observation has been that the pine timber of this Territory is usually found at an altitude between 5,500 and 7,500 feet. Below the 5,500-foot elevation the timber runs into stunted junipers, pinions, and other similar growth, and finally ceases altogether. Above the altitude of 7,500 feet it changes rapidly into Douglas fir, and, in the dark cañons, into spruce and balsam. I have noticed that on isolated mountain ranges throughout the Territory there is a zone of pine encircling the mountains between the altitudes above given.

I believe that the total quantity of pine timber fit for sawing purposes within the boundaries of the Territory will, when all brought into consumption, amount to 10,000 million feet. The ordinary rate of production with us is an average of about 10,000,000 feet per annum; and I do not believe that there are more than 2,000,000 to 2,500,000 feet produced elsewhere within the limits of the Territory.

Based on these presumptions, and without having any actual data to guide me, I have come to the conclusion that at the highest rate of increase of population which the most hopeful and sanguine friend of the Territory has dared to count on, the standing-timber supply would easily suffice for 150 to 200 years, even with present methods of consumption, and making no allowance for growth.

In this connection I desire to make the suggestion, that, as the conditions now permit of the forests being placed by legislation under the control of the people of the Territory without inflicting hardship on any vested interests, and as the future agricultural development of the Territory depends largely upon an abundant and permanent supply of water from the mountains, and as the water supply, in turn, depends upon the proper preservation (particularly from forest fires) and upon the control of the forest conditions, I believe it would be a wise and kindly thing to do for posterity, to frame such enactments as would forever preserve a suitable forest covering for the present timber-growing areas. As to the means by which the needed legislation shall be brought about, I leave that for those who are wiser and more familiar with such matters. But the necessity seems so apparent to me, that I can not refrain from making the suggestion in this connection.

Our present output, as you know, ranges from 10,000,000 to 13,000,000 feet per annum. This is marketed entirely now between Daggett and Albuquerque, a region which you may say is, by natural affiliation and similarity of condition, almost entirely a part of the Territory itself. We employ from 150 to 500 men, according to the season, and disburse annually from \$250,000 to \$525,000. We continually strive to increase the distance to which our products shall go, but we are met by a more abundant supply of timber and lower priced labor at the points above named; and it has seemed thus far impossible for us to compete beyond these points profitably. The higher price of labor and consequent heavy cost of production, as well as the expensive transportation conditions, effectually put a bar to farther progress in either direction at the present. It is hardly necessary for me to state that this forest extends east and west a distance of about 60 miles at a point where the Atlantic and Pacific Railroad crosses it, and extends north from the Atlantic and Pacific about 24 miles. Thence it continues in a general southeasterly course, but narrowing up as you go south to a width of from 3 to 10 miles until it merges into the forests of the White Mountains and so continues on into New Mexico.

The Coconino forest extends about 60 miles along the southern rim of the Grand Cañon, between the Little Colorado River and Cataract Creek, and has a width varying from 10 to 18 miles, an average width of, say, 13 miles.

EDUCATION.

Arizona has reason to be proud of her educational system, and in view of the mistaken ideas that seem to prevail in some parts of the east in regard to this subject, and the erroneous publications that have appeared, I desire to present a thorough and reliable statement of the facts.

Hon. George W. Cheyney, superintendent of public instruction; Hon. J. M. Ormsby, secretary of the board of regents of the Territorial University; Prof. F. A. Gulley, of the Agricultural College, and members of the faculty of the Territorial Normal School have furnished me with the following official information which is authentic.

The common-school system of the Territory is firmly established and well maintained by a carefully constructed code of law.

In plan it anticipates a general control by a board of education, consisting of the governor, treasurer, and superintendent of public instruction, of which the governor is president and the superintendent

secretary. On this board devolves the duty of general supervision; the adoption of rules and regulations for the government of subordinate officers; selection of a course of studies and of text-books; granting of life and educational diplomas, and the management of Territorial school funds.

This board meets at the capital of the Territory as frequently as may be necessary, and acts *ex officio* without compensation.

With a Territorial board of examiners, consisting of the superintendent of public instruction and two competent persons appointed by him, rests the duty of fixing the qualifications of teachers. Territorial certificates, valid in all the counties of the Territory, are issued direct by this board, and examination questions, prepared and issued quarterly by them, secure a uniformity in standing of county certificates, which are granted by boards of county examiners, consisting of three, of which the county superintendent is *ex officio* a member and chairman.

All these officers, with the Territorial superintendent, are appointive, the superintendent by the governor, with a term of 2 years, and at a compensation fixed by the legislature. The county superintendent, who is *ex officio* probate judge, is elected biennially in each county. He, in conjunction with county boards of supervisors, divides the county into districts, in each of which three trustees compose a board who manage the schools in their respective districts. Their term of office is 3 years, one being elected annually. At such elections, all property taxpayers and all parents or guardians of children of school age are qualified voters, without distinction as to sex or citizenship. With the board of trustees rests the power of appointing teachers and fixing their compensation, providing necessary supplies, enforcing the rules of the board of education, and with the consent of the qualified electors in their districts renting or building school houses, levying special taxes or bonding their districts. The law contemplates that, while each district shall receive a proportionate share of the general school fund for the conduct of the schools, the purchase or erection of school buildings shall be by the district itself.

Until 1883 the school age in the Territory was from 6 to 21; since then from 6 to 18, and all children between these ages, without respect to sex, race, or color, excepting Chinese and the children of Indians not taxed, are entitled to admission and a free education. If unable to procure text-books, they are furnished them by the district. No religious test or qualification can be applied, either to teacher or pupil, nor is any sectarian, denominational, or partisan instruction permitted. An annual census of children of school age is taken as a basis for apportionment of funds and for the division of counties into districts.

A school month in the Territory consists of 4 weeks of 5 days each, and although in the cities and towns schools are maintained for 9 and frequently 10 months, the average for the Territory is between 6 and 7 months. Districts must maintain a school for 5 months in order to secure the proportion of county moneys to which they are otherwise entitled.

FUNDS.

The Territorial fund is the proceeds of an annual levy of 3 cents upon each \$100 valuation of property. Unexpended balances are apportioned semiannually to the counties, in proportion to census children.

The general school fund is the result, mainly, of a direct tax upon all the property of each county, and is fixed by law at a minimum of

75 cents per \$100 of assessed property. To this is added the funds derived from per capita tax, gamblers' and liquor licenses, fines, forfeitures, penalties, etc. These taxes are collected and disbursed by the usual county officers, on warrants drawn by boards of trustees, audited by the county superintendent, and amount to about 25 per cent. of the aggregate expense of county government.

They are proportioned for the use of districts in proportion to the number of children therein, as ascertained by the census, but every district 2 miles in extent and having at least ten census children is entitled to \$400 annually.

It will be seen that the Territory has provided liberally for the education of its children, and has planned that none shall be deprived of an opportunity for improvement.

The school buildings are, in a great many instances, models of convenience and comfort, supplied with the best of furniture and apparatus, and while in the younger and sparsely populated regions not all that could be desired, will compare favorably with those elsewhere.

School libraries are gradually growing, and at the present time twenty-four districts have secured a start. In volumes they number 2,261. The total value of school property in the Territory, including buildings and grounds, amounted in 1890 to \$268,435, having increased since 1887 from \$176,238. Before that time complete records are not available. The cost per child per month has ranged in the past 8 years from \$5.01, the lowest in 1888, to \$7.03, the highest in 1884. This is estimated upon the average attendance, and not the whole number of children. As the attendance increases this amount will be reduced.

Educational progress in the Territory for the past 8 years.

Year.	Total receipts.	Total expenditures.	No. of schools.	Average school month.	Census children.
1883	*\$101,390.02	\$77,997.85	104	6	†9,360
1884	205,901.28	161,861.57	121	7	9,360
1885	186,666.12	138,164.83	137	7 ³ / ₁₀	10,219
1886	159,956.14	135,030.39	150	6 ¹ / ₂	10,219
1887	120,044.88	117,004.74	169	6 ³ / ₁₀	10,303
1888	157,707.93	130,212.14	184	6 ¹ / ₂	10,303
1889	179,782.35	150,543.41	197	6 ⁴ / ₁₀	12,588
1890	201,288.70	177,483.83	219	6 ³ / ₁₀	12,882

Year.	Average daily attendance.	Daily attendance per cent. on census.	Teachers employed.	Average salary per month.	Cost per child per month.	Value of school property.
1883	2,554	24 ¹ / ₂	98	\$75	\$5.09	.....
1884	3,287	35	143	85	7.03	.....
1885	3,226	31 ¹ / ₂	131	86	5.98	.....
1886	3,507	34 ¹ / ₂	150	78	6.21	.....
1887	3,602	35	175	81	5.28	†\$176,238
1888	3,849	37 ¹ / ₂	191	80	5.01	222,219
1889	4,293	34 ¹ / ₁₀	199	79	5.48	222,958
1890	4,702	36 ⁵ / ₁₀	240	77	5.97	268,435

* Includes balance from previous year.

† Census taken biennially; 1883 includes children 6 to 21; 1885 to 1889 includes children 6 to 18.

‡ Includes \$18,000, cost of building new school houses in Phoenix, Maricopa County. Correct cost per child, \$5.42.

As shown by the table, the increase in efficiency of the school system has been uniform and rapid, and while the increase in population has been in the last decade 47.43 per cent., the increase in enrollment of school children has been 85.85 (United States census).

In round numbers, one-third of the children are at school, while the percentage of those who attend a portion of the year is nearly one-half.

When it is considered that in the country districts distances are frequently so great as to render the attendance of children of tender age impossible, and that the school life of the elder is frequently ended before reaching 18, this percentage compares favorably with that in any of the older and settled States. Also, in several of the towns parochial and private schools provide the means of education for a great many. Were data obtainable upon these points it would be shown that our parents are generally alive to the necessity of the schooling of their children.

In 1890 there were in the Territory 187 school districts, containing 219 schools and employing 240 teachers, of whom 93 were male and 147 female. These teachers were paid, as an average, the male \$82.45 per month and the female \$74.45 per month, or an average for all teachers employed of \$77 per school month. The law fixes as a maximum \$125 per month to teachers holding first-grade certificates and qualified to teach a grammar school, and to those holding second-grade certificates \$90 per month. Teachers are liberally paid, with the intent that the best possible talent shall be secured, and that the Arizona public schools shall rank with the highest, and the average salary, while falling slightly from year to year, is equal to if not larger than that paid anywhere, with the result that positions in the Territorial schools are so eagerly sought as to render possible the selection of teachers of the highest grade.

The proportion of enrollment is, boys 100 and girls 85, marking the extreme in the United States, and is evidence of character of population as well as general desire for common-school education.

Text-books and course of study are well up with the times, and in the larger towns a high-school course is provided.

The grammar-school course is so graded that its completion meets the requirements of admission to the Territorial normal school, which, with the university, provides a complete system of public-school education within the Territory.

USE OF FLAG.

Without any special legislation, the custom of daily floating the Stars and Stripes over the building dedicated to the cause of education has become almost universal. The appropriateness and beauty of such a patriotic custom appeals to the instincts of every true American and needs no commendation.

The children accept it with enthusiasm, and to Nogales district, almost the extreme of the United States, belongs the honor of having first made the privilege of the morning flag raising the highest reward of merit known to the school. The observance of Arbor Day, designated by proclamation of the governor, was for the first time adopted in 1890.

TERRITORIAL NORMAL SCHOOL.

The normal school, established 6 years ago and maintained at Territorial expense, continues to grow in usefulness, and is an important factor in the educational system of the Territory.

The course of study embraces the subjects usually taught in similar schools in the States, and requires a period of 3 years for its completion.

There has been a steady increase in attendance since its organization, in 1886, and at present 64 students are enrolled under the charge of 2 instructors.

The school is supplied with chemical, philosophical, and other apparatus for illustrating the subjects taught, and a library of 500 volumes has been purchased during the past year.

TERRITORIAL UNIVERSITY.

The demand for and interest in higher education in the West illustrates one of the most noticeable features of the American citizen. The very great majority of our citizens, foreign born as well as native, believe in fostering education. No matter how new the country or sparse the population, the schoolhouse is considered essential, and high schools and colleges follow the building of towns.

The establishment of the University of Arizona shows that the people of the Territory are not less interested in education than residents of other portions of the country.

The university owes its origin partly to the national demand for educational facilities and partly to the prevalent home sentiment in favor of a school of liberal culture.

In 1881 the Congress of the United States made an appropriation of 72,000 acres of the public lands to Arizona and the same to several other Territories for the support of a university or institution of learning.

In 1882 the superintendent of public instruction made a selection of the lands, but as no immediate revenue could be derived from the land nothing further was done until the spring of 1885, when the legislature of the Territory made an appropriation of \$25,000 to found an institution of learning which should be known as the University of Arizona, and located it "at or near Tucson."

The establishing act provided for the appointment of a board of regents "by the governor of the Territory, by and with the advice and consent of the council, two-thirds of the members of the council concurring therein."

In compliance with this act a board of regents was appointed, the board formally organized, and a beginning made in the organization of the institution.

A tract of land lying just outside of the limits of the city of Tucson was donated to the university and selected by the board as the university grounds. A building was planned and a contract entered into for its erection October, 1887, the building to cost \$37,969.

Owing to lack of funds to complete the building and open the university to students, not much more was done except to continue the work on the building until other funds became available.

In 1887 an act was passed by Congress appropriating to each State and Territory \$15,000 per annum—"to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges or agricultural departments of colleges in each State and Territory established in accordance with the provisions of an act approved July 2, 1862, entitled 'An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts,' or any of the supplements to said acts, a department to be known and designated as an agricultural experiment station."

In the fall of 1889 the board of regents, acting in conjunction with the governor of the Territory, took the initiatory steps "to establish an agricultural experiment station" in Arizona.

An agricultural college was established as a part of the university, and a director appointed, who was also elected professor of agriculture.

After considerable labor on the part of the board of regents, ably assisted by the governor of the Territory, \$10,000 for Arizona was, by recommendation of the Secretary of Agriculture, placed in a deficiency bill, which included New Mexico and Utah. This amount was made available in June of 1890, and the board entered into contracts covering the full amount allowed for the fiscal year ending June 30, 1890. For the year ending June 30, 1891, Arizona received her full quota, which, with the appropriation for 1890, has been expended in equipping four agricultural experiment stations, one at the university, one at Phoenix, one 3 miles south of Tempe, on the Maricopa and Phoenix Railway, and one near Yuma.

In 1862 an act known as the "Morrison bill" was passed by Congress, appropriating 30,000 acres of public lands to each State for each Congressional Representative, for the support of an agricultural and mechanical college. No funds from this source are yet available, but on August 30, 1890, a supplementary bill which was passed by Congress was approved, which appropriates to each State and Territory, commencing with the year ending June 30, 1890, \$15,000 for the first year and an annual increase of the amount of such appropriation thereafter for 10 years by an additional sum of \$1,000 over the preceding year, and the annual amount to be paid thereafter to each State and Territory shall be \$25,000, to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life and to the facilities for such instruction. With the exception of one-fifth of the appropriation for agricultural experiment stations for the first year, and 5 per cent. thereafter, the acts provide that these funds may not be expended in the erection or repairs of buildings. The first must be used to carry on investigations, the latter to equip and support schools of learning, it being intended that the several States shall supply land and buildings.

Arizona has received the appropriation of \$15,000 for 1890, and \$16,000 for 1891, and these sums are being expended in the equipment and support of the university.

In 1889 the legislature of Arizona passed a bill appropriating three-fourths of a mill on each \$1 of the assessed value of all property in the Territory for the support and maintenance of the university. This act was amended by the last legislature, making the annual appropriation one-half a mill. From this source the university has had placed to its credit to June 30, 1890, the sum of \$33,395.89. The territorial appropriation is being expended in the completion of the university and other buildings.

The university has received to date:

From the General Government for the agricultural experiment station.	\$25,000.00
From the General Government for the equipment and support of university	31,000.00
From the Territory for the equipment and support of university	59,245.89
From all sources a total of	115,245.89

The Territorial enactment establishing the University of Arizona provides:

[SEC. 10.] The University shall consist of five departments:

First. The department of science, literature, and the arts.

Second. The department of theory and practice, and elementary instruction,

Third. The department of agriculture.

Fourth. The normal department.

Fifth. The department of mineralogy and the school of mines.

The immediate government of the several departments shall be intrusted to their respective faculties, but the board of regents shall have the power to regulate the course of instruction, and prescribe, under the advice of the professorships, the books and authorities to be used in the several departments, and also to confer such degrees and grant such diplomas as are usually conferred and granted by other universities.

The board of regents temporarily organized the agricultural college in the fall of 1889, and on October 19, 1890, completed the organization of the university for the present; and the experiment station, which is made a department of the university, by establishing the third and fifth departments; the school of agriculture and the school of mines.

The university building is nearly completed. The chemical laboratory is equipped and in working order, supplied with gas and water, and it is proposed to have everything ready for students at the beginning of the first session, September 30, 1891.

From the foregoing it will be seen that the university as organized at present includes three departments, two for instruction and one for investigation. The several members of the corps of instructors in the school of agriculture will constitute the working staff of the experiment station, and members of the faculty of the school of mines will give part of their time to investigations looking to the more satisfactory working of some of the refractory ores of the Territory, the examinations of certain deposits, geological surveys, and work designed to aid in developing the mineral resources of the Territory.

COURSE OF INSTRUCTION.

The studies to be pursued are similar to those of several of the well-known agricultural colleges and mining schools in the country, modified to suit the special requirements of the Territory. Both courses include a 4 years' curriculum of scientific studies, and the university is well equipped with laboratories, furnaces, and other apparatus for giving students equal advantages with those that may be found in older institutions.

Hereafter, young men of Arizona who desire to follow any branch of agriculture or of mining will not be compelled to go to California or to Eastern colleges to secure an education.

To establish and equip these two schools in first-class condition, the board of regents have wisely determined to concentrate the energies of the university on the two schools, leaving other departments to be established when the Territory becomes a State and we have a greater population and more means.

The instruction in the school of agriculture is designed to impart a knowledge of the natural sciences and their application to the arts of life, particularly agriculture.

Chemistry, botany, horticulture, and the use of water in irrigation will receive special attention, both in theory and in practice. The studies of the class room will be supplemented by laboratory and field-work practice. The university grounds and the several experiment stations in the Territory are to be used as means of illustration.

In addition to the prescribed work of 35 weeks in the university, students will be required to spend 3 weeks at other stations and on the fruit farms of the Territory during the year, studying and practicing the details of experimental and farm work and irrigation under the supervision of members of the faculty.

Facilities will be provided for instruction and practice in the several

branches of agriculture and horticulture, such as surveying, leveling, general arrangement of farms, road making and constructing buildings and fences, care of machinery, laying out canals and ditches, measurement of water, etc.

Provision is made for two regular courses leading to the degree B. S. (bachelor of science), and advanced studies leading to the degree M. S. (master of science), C. E. (civil engineer), and I. E. (irrigation engineer).

SCHOOL OF MINES.

The board of regents, recognizing the vast resources of Arizona in metalliferous deposits and the great importance of their thorough and economical development by well-trained engineers, have appropriated a large portion of the available university funds for the establishment and equipment of a school of mines, in which instruction may be given in the theory and practice of mining and metallurgy and related subjects. Dr. Theo. B. Comstock has been elected director of the school of mines, and under his supervision a corps of instructors have been engaged, laboratories and other facilities are being provided, so that it is possible to announce courses of study, and to outline the plans upon which the work will be conducted.

Provision is made at present for two regular courses leading to the degree of bachelor of science. Higher degrees of M. E. (mining engineer) and Met. E. (metallurgical engineer) may be obtained by further advanced study upon terms which will be made known upon application.

BOARD OF REGENTS.

The following-named gentlemen constitute the present board of regents of the University:

Merril P. Freeman.....	President.
John M. Ormsby.....	Secretary.
Selim M. Franklin.....	Treasurer.
John Gardiner.....	

Ex officio.

Nathan O. Murphy.....	Secretary of Territory.
George W. Cheyney.....	Superintendent public instruction.

Several of the chairs of the faculty have been filled; others will be provided for before the time of opening. The men who have been selected have been appointed on account of their special fitness for the work in view. Merrill P. Freeman, chancellor; F. A. Gulley, M. S., professor of agriculture, dean of agricultural college, and director of experiment station; Theo. B. Comstock, Sc. D., professor of mining and metallurgy, and director of school of mines; C. B. Collingwood, M. R., professor of chemistry; V. C. Stolbrand, C. E., professor of mathematics and irrigation engineering; J. W. Toumey, B. S., professor of botany and entomology.

REQUIREMENTS FOR ADMISSION.

Candidates for admission into the freshman class of the university must be at least 16 years of age, of good character, and must pass a thorough examination in arithmetic, geography, grammar, and history of the United States, and show evidence that they have sufficient knowledge of language to write a short essay in good English on some assigned topic.

Provision will be made for receiving the graduates of the high schools of Arizona without examination, provided the course of instruction is such as will warrant suitable preparation.

Recognizing the fact that there are in the Territory certain persons of mature age who feel that they can not spare the time to take up a regular course of study, but who feel the need of instruction in certain things that would materially assist them in their callings, the board of regents have made provision for a short course of technical study in the two schools of the university, subject to certain limitations.

This class of instruction must, of necessity, be restricted to those subjects which are not dependent on prior training in special lines.

It is not proposed to encourage superficial work, nor can the time of the faculty be given to those who desire to study a subject for which they are not prepared. For this reason applications of students for a special course must be considered individually, with a clear understanding of all the circumstances.

Applications of students should be forwarded to the head of the school of agriculture, or of the school of mines, stating what is desired, and what qualifications the applicant may have to fit him for the course.

At present the special subjects which can be taught in the school of mines are assaying, photography, drawing, and possibly some others. In the school of agriculture, propagation of plants, budding, grafting, pruning, preserving fruits, destroying injurious insects, irrigation, use of level and compass, laying off ditches, and such work as may be understood without special training.

Applicants may begin such studies at any time during the year when members of the faculty have time for the work. While at the university they will be enrolled as students and be subject to the rules of the institution. No charge will be made by the university for entrance or for such instruction, except for materials used.

No entrance examination will be required as a rule, and no formal certificate of proficiency can be given; but any special student who has complied with all the requirements will be entitled to a written document simply setting forth the facts.

Applicants must be at least 18 years of age, and they will be expected to present references with application in regard to character and industrious habits.

PREPARATORY COURSE.

A preparatory course extending through one collegiate year has been provided for, embracing studies in arithmetic, English grammar, history, elementary algebra, physical geography, drawing, and writing.

This course is designed for such students as do not have facilities at home to prepare them for entering the regular classes in the university schools.

In the establishment of this department of the university it is not the intention at present to afford opportunity for a common-school education, but simply a school that will prepare students for taking up the technical work of the schools now organized in the university.

For entrance into the preparatory school students will be required to pass an examination that will show that they have some knowledge of arithmetic, grammar, geography, and be able to write legibly and spell simple, common words correctly.

Students in this department must be not less than 16 years old, and they will be under the same rules and discipline as other students of the university.

The university has ample facilities to instruct a large number of students, but no provision is made for boarding students.

The buildings are within easy walking distance of Tucson, where students may secure rooms and places to board. As soon as means will permit the board of regents contemplate erecting a dormitory on the university grounds for the accommodation of students.

Tuition is free, but all students except those referred to above under "Special students" will be required to pay a matriculation fee of \$5 when entering. The fee is paid but once, and entitles the student to the use of the library and other privileges.

There are to be no other charges, except for books and for materials used in laboratory and for breakage.

AGRICULTURAL EXPERIMENT STATION.

Station staff.

Frank A. Gulley, M. S.....	Director.
Chas. B. Collingwood, M. S.....	Chemist.
Vasa E. Stolbrand, C. E.....	Meteorologist, Irrigation Engineer.
James W. Toumey, B. S.....	Botanist, Entomologist.
James W. Heberly	Assistant Chemist.
Mark Walker.....	Horticulturist.
J. Richard May.....	Stenographer.
R. J. Furgeson.....	Engineer.
M. Moss (Phoenix Station).....	Foreman.

The experiment stations in the several States are placed under the control of the directing boards of the agricultural colleges, so that in each State such investigations may be made as will be of most value to the people of the State.

The general scope of the work of the agricultural experiment station of the university is set forth in Bulletin No. 1, which, with other bulletins, will be forwarded free to any applicant who will forward name and address to the director of the station.

It is the earnest desire of the station officials to make their work interesting and of value to the people.

Analysis of soils and of waters of the Territory will be made free of cost when such examination is of public interest, and correspondence is solicited from persons interested in having such work done.

While the experiment station is organized primarily in the interest of agriculture, time will be given to the examination of ores, minerals, and other products when such investigation will be of value to a community in the interest of the public at large.

The equipment of the school of mines includes the necessary apparatus for making such tests.

In its entirety the university promises to be of great value to Arizona. It is an institution our citizens may be proud of, although in its infancy. The influence of its work will make itself felt more and more as time goes on, not only through the students who become a part of it, but it will help to extend and broaden our entire educational system.

The opening of the university marks the era of the change from a pioneer country to a community of homes, and it announces to the outside world the fact that Arizona will give to the newcomer all in the way of good society, law-abiding people, and educational advantages that he may find in the older States. The first session of the university will begin September 30, 1891, and close June 25, 1892.

SCHOOL LANDS.

This subject is exceedingly important to the educational interests of the Territory, and I repeat my former recommendation in this connection and urge favorable consideration by Congress.

While our educational system is admirable, its maintenance is comparatively burdensome, because no assistance is derived from the school lands on account of our Territorial condition, all expense being born by direct taxation. The sixteenth and thirty-sixth sections in every township, "granted to assist in defraying educational expenses," are of no assistance except in States. It seems unfair that Territories are not granted equal advantages with the States in this respect.

It is also important that the Territories be permitted to select good land in lieu of the sixteenth and thirty-sixth sections when said sections fall upon barren and mountainous localities, otherwise all desirable land will be appropriated by settlers, and the school fund will be insignificant when, after admission to statehood, the school lands become available for educational purposes. The attention and favorable action of Congress in regard to this question is respectfully requested

LABOR.

This question has not yet required attention in this Territory as bearing upon the public welfare and the conduct of affairs. So far there have been no strikes nor organized movements as against capital.

The supply and demand are fairly equalized, wages satisfactory, and labor contented.

INDIANS.

The condition of the Indians in the Territory has not materially changed since the rendition of my last report so far as information is obtainable at this office. The United States authorities having full control and jurisdiction and no reports or statistical information being required to be furnished to Territorial officers, whatever I may have to report upon this subject must of necessity be general in its nature. I will say, however, that fewer complaints have been made on account of Indian depredations and crimes during the past year than for any like period of time perhaps in the history of the Territory. A few Indian outlaws, variously estimated to number from eight to thirteen, and who are known to be guilty of many crimes, still continue to evade the military and civil authorities, and are reported to be hiding in the mountain fastnesses across the Mexican border, from which they occasionally raid into Arizona. Three murders during the year in the southern part of the Territory have been directly traced to them. It would seem possible for the United States and Mexican military authorities to agree upon and execute some plan of concerted action whereby these outlaws can be arrested or exterminated. Such action would be a great relief to our people.

A little friction occurred in the northern part of the Territory in the month of July between the citizens and the Navajoes, in regard to which exaggerated and sensational reports were telegraphed over the country. The trouble was quickly quelled without bloodshed or serious consequences. The Navajoes are a powerful tribe, who are increasing in numbers and wealth, and the trouble referred to was occasioned by a case of alleged horse-stealing by Indians off their reservation. It was proven that the Indians were guiltless of the charge and were unjustly

accused, but it is believed that these Indians should be confined within the limits of their reservation and not permitted to roam at will and graze their large herds over the public domain, which may occasion conflicts between themselves and their white neighbors. These Indians are exceedingly jealous of allowing white prospectors upon their reservation, and their objections have been fully sustained by the Government. On the other hand, equal care should, in my judgment, be exercised to confine the Indians within their proper limits. As previously stated, these Indians are powerful, well-armed, and rich in ponies and supplies, and a war with them would be bloody, protracted, and expensive. While their evident inclinations and interests are toward peace, care and good judgment should be continually exercised in intercourse with them, in order to properly guard public interests.

It is still considered very desirable for the progress and prosperity of the Territory that the mineral and coal lands on the San Carlos reservation be segregated and opened for settlement and development. I am informed that the Indian Bureau opposes such action, claiming that it would be encroaching upon Indian rights and property. As this property is not now being utilized by the Indians nor any revenue from it derived by them, it would seem just that the segregation be made, and sale and occupation authorized in the same manner as other public lands are settled, and the Government price of the land placed in a trust fund for the use of the Indians. Schools have been started in different parts of Arizona for Indian education, with flattering results, although a speck of war was threatened near our northeastern border by the Moquis, whose priests objected to the schools of white men. At Phoenix an extensive school has been projected and is now in course of construction. Pending the erection of the building many of the Pimas and Maricopas are being instructed in a temporary house rented for the purpose, with astonishingly beneficial results. The school at Tucson, as well as those upon the San Carlos reservation, are pronounced successes. It has been recommended in former reports that the more warlike Apaches under military surveillance on reservations in the southern part of the Territory be removed from Arizona, this in response to the almost unanimously expressed wishes of our people. It has been demonstrated, however, that this proposition is impracticable, the Government having no more appropriate place to locate them. But it is still contended, and I think with propriety, that these Indians should be disarmed and prohibited from the use and possession of rifles and fixed ammunition. The Indian Bureau, I am informed, opposes this action, on the ground particularly that the poor Indian would be left defenseless against the attacks of lawless white men. Such premises are, in my judgment, false and an outrage upon our people, as well as being inconsistent with the religious education being promoted by the Bureau. A Winchester rifle in one hand and a Testament and spelling book in the other certainly presents a vivid anomaly.

It is also stated that the military authorities of the Government opposed disarming these Apaches, first, because of the difficulty and danger, and second, because it would take away, to a certain degree, their means of obtaining a livelihood. It is respectfully submitted that presenting the question of difficulty and danger appears almost equivalent to a confession of weakness, and as to the use of firearms with which to support themselves by killing wild game, the proofs are ample that game cuts no particular figure in the economy of their living; they are maintained by the Government.

While I do not wish to be captious on this subject, I express the unanimous sentiment of our people in asking that these Indians be disarmed and prohibited from the possession of rifled guns and fixed ammunition. Shotguns are less objectionable, but while thoroughly armed with Winchesters and revolvers they will remain a continued menace to the peace of the Territory.

PUBLIC BUILDINGS.

No aid has ever been received from the General Government for public buildings in Arizona. Whether this is chargeable to ungenerous discrimination or incompetent representatives is not clear, but it is true that not a dollar has ever been appropriated by Congress to aid the Territory in this respect, which neglect is unaccountable in view of the fact the Government pays annual rentals for offices for United States officials in sums amounting to more than liberal interest on the cost of suitable buildings for the public service.

The public buildings of Arizona consist of the Territorial prison, situated at Yuma; the Territorial University, at Tucson; the insane asylum, at Phoenix, and the normal school, at Tempe. All have been erected at Territorial expense, and are creditable structures.

CUSTOMS.

The customs district of Arizona was created by act of Congress April 29, 1890. It embraces about 450 miles of international border on the northern frontier of Mexico, which is crossed at Nogales by the New Mexico and Arizona Railroad, connecting with the Southern Pacific Railroad at Benson, Ariz., and having its terminus at Guaymas, on the Gulf of California.

The district of Arizona has for its chief port of entry the thriving town of Nogales, and has also four subports, viz: Tombstone, Yuma, Lochiel, and Buenos Ayres. The chief officers of the district are as follows: Nogales, Hon. George Christ, collector; Willis P. Haynes, special deputy collector; Tombstone, A. L. Grow, deputy collector; Yuma, F. B. Wightman, deputy collector; Lochiel, C. B. Reppy, deputy collector; Buenos Ayres, W. W. Williams, deputy collector.

The new district was opened for business as a separate jurisdiction July 15, 1890, and for the remaining 11½ months of the fiscal year ending June 30, 1891, the importations and receipts were as follows:

	Value.
Merchandise imported free of duty.....	\$1,523,388
Dutiable merchandise.....	135,893
Gold and silver bullion.....	1,215,828
Gold and silver coin.....	319,100
Total value of importations.....	3,194,209
Value of gold and silver ore imported (included in free and dutiable merchandise).....	1,523,301

	Pounds.	Duty.
Lead contained in silver ores.....	1,114,215	\$17,163.23
Copper contained in silver ores.....	245,113	1,773.83
Duties collected on all other importations.....		17,054.78
Total duties collected.....		35,991.84

From the foregoing statement it will be seen that over one-half the revenues of the district are derived from duties on the lead and copper contained in silver ores, the importations of which from Sonora, Mexico, are steadily increasing. Collector Christ gives it as his opinion that the revenue from this source alone for the fiscal year 1892 will considerably exceed the entire revenues of the district for the year ending June 30, 1891.

ARID LANDS.

The public lands of Arizona are nearly all properly called "arid," with the exception of a very few small valleys where cultivation is had because of subirrigation. The lands, if cultivated, require the conservation of water by damming streams or building reservoirs and service on the land by means of canals, ditches, etc. These methods are expensive and require large capital, especially where the lands under the water systems operated are not thickly settled, and the population using and paying for the delivery of water is comparatively small, conditions which exist in Arizona.

The question of the reclamation of the arid region has agitated our legislators for several Congressional sessions. Much discussion has been had, plans proposed, and appropriations of money made, yet no satisfactory progress has resulted. A large and influential convention has lately been in session in Salt Lake City, Utah, the object of which was to bring about a proper solution of the arid-land question if possible. It evidently is and has been the intention and desire of the General Government to further the development of the Western Territories by legitimate and properly directed aid (if an acceptable plan can be determined upon) looking to the reclamation and settlement of the arid region.

Strong influence has been exerted in Washington to secure large appropriations of money to be expended by the geological officers of the Government in preliminary and, in a large sense, experimental work, and the act of Congress of October 2, 1888, on this subject was considered by our people the entering wedge for the expenditure of a great deal of public money without beneficial results, besides holding back the progress and development of the country by the withdrawal of lands from entry for a long period pending the completion of the proposed governmental work, and the repeal of the obnoxious law was very gratifying.

It is argued that if reservoirs and canals are located and constructed under the direction and expense of the General Government the very large outlay will be recompensed by the sale and occupation of the public lands, and that the Government can in that way, notwithstanding the primary expenditure, be reimbursed from the sale of public lands not now desirable for settlement, even though the reservoirs, canals, etc., constructed in this way are donated to the States or Territories and not operated by the Government, and at the same time such action will be liberal encouragement and aid to the development and prosperity of the arid region.

It is respectfully submitted that while the Government might by such methods be reimbursed by the sale of lands for the expenditure of a large sum of money under the direction and to the advantage of interested parties, it is exceedingly doubtful if any margin of profit would result to the Government.

If the General Government desires to be liberal and legitimately encourage the development of the arid region without immediate pecuniary profit to itself, it can substantially demonstrate its liberality by

ceding these public lands to the States and Territories in which they lie, and to reclaim the lands and make them immediately available as a source of profit, loan to the Territory or State sufficient money to construct the necessary reservoirs and canals (possibly under the direction and control, until completed, of Government authority), and take as security for the loan the bonds of the State or Territory at 2 per cent. annual interest.

Under such action the Territory of Arizona would immediately become financially strong, populous, and beyond all question capable of self-government. As to the details of a plan looking to such results and the regulations to be prescribed in relation thereto, whether such benefits may be donated to the Territory before admission into the Union or given in trust until admission as a State, and other material questions of detail, they can be properly guarded by legislation.

Such a plan would certainly be more beneficial to the General Government than the other way of expending large sums of money simply to be reimbursed from the sale of public lands, without profit or interest, and without great or immediate advantage to the Territory. The unamerican and selfish argument is advanced by some representatives of the older States that aid by the General Government for the reclamation and development of the arid region should be opposed on the ground that it would be creating damaging competition to the farming interests of their constituents by making available a new and marvelously productive agricultural country. Such opposition can certainly have little support from progressive legislators.

The greater part of the arid land of Arizona is very favorably located for reclamation. Reservoir sites on the Salt and Verde Rivers, upon the Gila and Agua Fria, Santa Cruz, Little Colorado, Hassayampa, and several other smaller streams present the very best advantages for the storage of water enough to reclaim an area of country larger in extent than several of the New England States. The water supply is ample and only needs conservation. Private enterprise would no doubt build many reservoirs and canals if the lands belonged to the State and were available; but the larger and more expensive ones are beyond the reach of ordinary syndicates, and therefore governmental aid is desirable.

It has been demonstrated by reliable engineers that immense reservoirs can be built; one on the Salt River above its junction with the Verde, in Maricopa County, and another on the Gila at what is known as the Buttes, above Florence, in Pinal County, of sufficient capacity to store water enough to reclaim and irrigate every acre of land in the immense valleys of the Salt and Gila Rivers, containing over 3,000 square miles.

To build these reservoirs would require an expenditure of several millions of dollars, which, according to the plan heretofore suggested, could be expended under the control and direction of governmental officers and engineers, and transferred to the Territory or State on completion, to be paid for in State or Territorial bonds bearing 2 per cent. interest, or possibly such higher rate as might be agreed upon. The geological officers of the Government, who would probably have charge of the work of construction, would be virtually accomplishing, although in a different way, what was originally proposed by them. Whatever is done by the General Government in regard to the arid lands, it is to be hoped that no such withdrawals from entry as were contemplated in the act of October 2, 1888, will be authorized. The attention of the Secretary of the Interior and of Congress is particularly invited to this subject.

THE WORLD'S FAIR.

The sixteenth legislature of Arizona, appreciating the great importance of the Territory's wonderful resources being properly presented at the World's Columbian Exposition, to be held in Chicago in 1893, authorized a loan to be made upon the faith and credit of the Territory, secured by 5 per cent. 20 year Territorial bonds in the sum of \$30,000, with which to provide a proper exhibition at the fair. The language of the Territorial statute providing for the loan requires the specific approval and authorization of Congress before negotiation is had; and in view of the fact that the present indebtedness of the Territory exceeds the limit allowed by law, it will be necessary for Congress to legalize the proposed expenditure. It is hoped that favorable action will be taken by Congress in this, to Arizona, important matter, as our people are very desirous of having the Territorial resources properly represented at the great exposition.

COCONINO COUNTY.

The new county of Coconino was created by act of the last legislature by a division of the county of Yavapai. The county seat is at Flagstaff, on the line of the Atlantic and Pacific Railroad. The affairs of the county are prosperous, and the principal industries consist of the manufacture of lumber, stock-raising, and the quarrying and shipping of sandstone for building purposes. Nearly all of the great lumber forests of the San Francisco range are in Coconino County.

The county starts with a debt of \$153,000 and an assessed valuation of \$2,200,000; rate of taxation for all purposes, \$2.85.

STATEHOOD.

The people of Arizona as a rule, I believe, are desirous of the independence that self-government will vouchsafe to them; however, their preference in this respect will soon be decided by ballot.

By act of the sixteenth legislature of Arizona, approved March 19, 1891, provision was made for holding a convention and the forming of a State constitution.

The provisions of the law were carried out at the election of delegates, and the first constitutional convention of Arizona is now in session. It is to be hoped that such a constitution will be formed as will be acceptable to the people of the Territory and to the General Government, for notwithstanding our limited population and heavy debt it is believed that the operations of a State government will not only relieve our financial embarrassment, but insure our prosperity. The same reasons that have previously been presented from this Territory on this question obtain now. Aside from the satisfaction and pride of independent self government, the availability of our immense area of school lands alone would, in my judgment, nearly compensate the increased expense that statehood would bring, and, as formerly stated—

With increased transportation facilities and internal improvements now contemplated (and which will be assured if we are allowed statehood), bringing different localities representing different industries into closer communication with each other, and making all the resources of the Territory available, Arizona will be an empire in herself, with the balance of commercial traffic so largely in her favor that few subdivisions of the nation will equal her in wealth.

All doubt would be dispelled, if any exists, as to our capability for self-government if the General Government would donate to Arizona all the public lands within her borders, to be reclaimed, developed, and utilized under State regulations, the same as in Texas.

More especially would this be true if the General Government would loan to the young State, at a low rate of interest, money for the construction of reservoirs for the conservation of water.

The question of forming a State constitution should not be political nor influenced by partisan interests, and the present dominance of either political party should not, in my judgment, affect the action of Congress as to our qualifications and rights. Our case should be decided upon its merits aside from politics, although in the election of delegates to the present convention in Arizona party lines were drawn and partisan nominations made, and although the contest was but in a few instances aggressively conducted, it resulted in the election of 17 Democrats and 5 Republicans, and the organization of the convention was partisan. The body is strong intellectually, and contains some of our ablest citizens, and it is sincerely to be hoped that extreme zeal for partisan advantage will not be allowed to jeopardize our chances for admission.

The principal bone of contention so far developed between the political parties in the convention is the question of following the example of Idaho in the matter of the "test oath" as applied to Mormons exercising the right of franchise. The Democrats oppose the "test oath" and the Republicans favor it. The Democrats claim that the Republicans favor the measure because the Mormons of Arizona vote the Democratic ticket, and that the question is entirely political and not moral, and the proposed "oath" if required by the constitution would be an unjust and unconstitutional discrimination on account of religious belief; that the Mormons have renounced the practice of polygamy and bigamy by edict of their church authorities, and that they conform to the laws of the country, are worthy people, and are entitled to the same consideration accorded to other citizens. On the other hand the Republicans claim that the question is more moral than political, notwithstanding that the Mormons vote the Democratic ticket to a man; that the renunciation of the crimes of polygamy and bigamy by edict of their leaders is not sincere, and is only done for a purpose, and that those crimes against society still form the keystone to the arch of their faith; that they do not recognize the supremacy of the State over their church; that they exercise the right of franchise blindly as a class and under orders from selfish and interested motives, and are consequently unfitted to exercise such a right, no matter what political party they favor, unless they are willing to subscribe to the oath referred to.

This question was fully ventilated and ably discussed in Congress and before the Supreme Court in relation to the admission of Idaho. It is also claimed here by independent thinkers that owing to the junction of Arizona with Utah it would be very easy to so colonize the Territory with Mormons by either political party (which they might be inclined to favor) as to absolutely control the affairs of state for a long time, and it is true that they do now hold the balance of political power in Arizona.

These facts are submitted for your consideration without comment. The law authorizing the constitutional convention provides that any article may be submitted separately to the people, and upon all questions where political or other conflict exists to any considerable degree it is possible and it would certainly be just and fair that the verdict of the people be obtained.

While personally I believe that an enabling act should have been had previous to the formation of a constitution, I favor the admission of Arizona into the Union upon any just and equitable constitution which our people may accept.

RECOMMENDATIONS FOR CONGRESSIONAL LEGISLATION AND ACTION
OF THE INTERIOR DEPARTMENT.

(1) That Arizona be admitted into the Union as a State upon the adoption of a proper constitution by the people.

(2) That all the public lands within Arizona be ceded to the Territory or State.

(3) That all public lands within the Territory be surveyed.

(4) That the sixteenth and thirty-sixth sections of the public lands (school lands) be made available to the Territory at once, and that provision be made for the selection of good sections in lieu of bad.

(5) That all Apache Indians under military surveillance in the Territory be disarmed and prohibited from the use and possession of rifled guns and fixed ammunition.

(6) That the mineral and coal lands on the San Carlos reservation be segregated and opened for occupancy and development by white citizens, and that the money received from the sale of these lands (as other public lands are sold) be placed in trust for the use of the Indians.

The following recommendations made last year are hereby renewed

(7) It is requested that Congress appropriate for the erection of buildings for the use of the public service in Arizona.

(8) That the salaries of the present judges in Arizona be increased to \$5,000 per annum.

(9) That the pay of legislators in Arizona be increased to \$10 per day.

(10) That appropriations be had by Congress to pay the governors and secretaries of the Territories the amounts allowed them by law under section 1845, Revised Statutes of the United States, 1878.

(11) That Congress appropriate a reasonable sum for artesian-well boring in this Territory.

(12) It is also recommended that provision be made by Congress for loaning money to the State or Territory at a low rate of interest and under proper regulations for the construction of reservoirs and the reclamation of the arid lands.

(13) Should further legislation by Congress be necessary to make effective the funding act of Arizona approved June 25, 1890, it is earnestly recommended that favorable action be had.

(14) That Congress approve and confirm without delay act No. 103 of the sixteenth legislature of Arizona, approved March 19, 1891, entitled "An act to provide for the collection, arrangement, and display of the products of the Territory of Arizona at the World's Columbian Exposition of 1893."

UNDEVELOPED RESOURCES.

The undeveloped resources of Arizona consist of mountains of valuable minerals, and thousands of square miles of agricultural, grazing, and timber lands, the extent and value of which can scarcely be measured.

Respectfully submitted.

N. O. MURPHY,
Acting Governor.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

REPORT
OF
THE GOVERNOR OF NEW MEXICO.

TERRITORY OF NEW MEXICO,
EXECUTIVE OFFICE,
Santa Fé, N. Mex., October 12, 1891.

SIR: In response to the request contained in your letter of July 28, I have the honor to transmit the following report on the condition, the progress, and the development of this Territory during the last year.

Very respectfully,

L. BRADFORD PRINCE,
Governor of New Mexico.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

LAND TITLES.

In each annual report which I have had the honor to present the subject of land titles has been placed first, because of its transcendent importance in considering the condition and welfare of New Mexico.

I have heretofore recited the unsatisfactory condition of the titles of the Spanish and Mexican grants, which include so large a part of our available land, the attempts at their settlement under the act of July 22, 1854, the lamentable failure of that plan and the final cessation even of endeavors to act under it, the efforts of the people of New Mexico through many years to obtain relief by the establishment of a tribunal for the adjudication of these questions, and the unfortunate results of the uncertainty regarding these titles in preventing the settlement and improvement of our lands and the investment of the capital necessary to develop our natural resources. Session after session of Congress has passed with no apparent advance toward the establishment of the much-needed tribunal to settle these titles, although bills were regularly introduced for that purpose and urged by our Delegate.

It is fitting, therefore, that this report of the progress of the Territory during the past year should commence with the announcement of the final success of these efforts in the passing of the "land-court bill," which is formally entitled "An act to establish a court of private land claims, and to provide for the settlement of private land claims in certain States and Territories," and was approved by the President March 3, 1891. The people of New Mexico gratefully recognize their obligations to the President and yourself for this long-desired relief. We appreciate that to the emphatic recommendation contained in the President's message of December, 1889, the more extended argument for action in the report of the Secretary of the Interior, and the President's special message of July 1, 1890, urging immediate attention to the subject, are due the success of the measure in Congress after it had failed on so many previous occasions.

The court thus constituted was duly organized at Denver July 1, 1891, and will hold its first session for the transaction of business in November.

No one but those familiar with the subject can appreciate the importance of these events to the future of New Mexico. The portion of the country first settled, and consequently covered by Spanish or Mexican titles, naturally includes the best of the agricultural lands. While the United States had solemnly covenanted to respect all such titles, and it is a fundamental principle of international law that a change in political relations should not interfere with private property rights, yet the course of our Government has had the practical effect of unsettling titles and then leaving them in that uncertain condition for forty years. This has naturally prevented the improvement of property, discouraged immigration, and stopped the investment of capital. The only wonder is that New Mexico has progressed as far as it has under such depressing circumstances.

Now, with titles established, with what is really Government land clearly defined, every fertile acre will quickly be cultivated, the best class of population will be attracted, capital will flow into channels of secure investment, and all of our varied resources will be quickly developed. The incubus on our prosperity is removed and the future is bright indeed.

The land-court act, while thus valuable in its general features and effect, yet is defective in various respects, and will require several amendments in order to make it entirely just to all classes of owners. What is known as the "eleven-league clause," in section 13, is not only inequitable, but in direct violation of private rights and treaty obligations. It is founded on a law of the Mexican Republic as to the size of grants thereafter to be made, and which of course did not affect vested rights under grants made by Spain a century before. This, however, affects but comparatively few parties.

But the provisions with regard to the "small holdings" affect thousands, and they are vitally defective. The errors in this part of the law are those which would naturally occur in an instrument drawn by persons unfamiliar with the peculiarities of New Mexican farms as to size and shape.

In my report of 1890 (pp. 6 and 7) I endeavored to explain the nature of these small tracts and the reasons for their peculiar shape. I will not repeat this here, further than is necessary to make the situation clear. In an irrigated country the cultivated land lies between the acequia or irrigating ditch and the river. Our valleys are usually narrow, giving ordinarily a width of 1,000 to 3,000 feet to this cultivated land. This is cut up into small farms. When first settled the original occupants usually had a plot from 50 to 300 varas wide (a vara is a short yard, 33 inches), running from the river to the foothills back of the acequia. As generations succeeded each other these tracts were divided among heirs until the strips became very narrow. The land is of great fertility, and hence a small farm will support a family. To illustrate by a part of the Rio Grande Valley, with which I am familiar, the series of "small holdings" runs as follows as to width in varas: 20, 40, 18, 22, 51, 13, 5, 40, 10, 10, 30, 40, 35, 26. Here are fourteen small farms, each about 1,500 feet long from the hills to the river, and having an aggregate width of 360 varas, or about 1,000 feet. Altogether they contain about 35 acres, or an average of $2\frac{1}{2}$ acres each. They have been owned and occupied and worked through many generations, and the title to them is as perfect as any that can be conceived, except that they are menaced by the power of the United States, in direct violation of the

treaty. Now, the "land-court bill" provides, in section 17, that any one of the owners of the above fourteen tracts, upon making proof of the fact of his residence, etc., may "enter such legal subdivision, not exceeding 160 acres, as shall include his said possession." The smallest "legal subdivision" known to Land Office law is 40 acres, and yet within a less area than that we have fourteen owners in this case. From this it will be seen how utterly inapplicable this provision is to a country which was settled before either Jamestown or Plymouth was thought of, and where land is held in an entirely different manner from that which was suitable to our public domain on the prairies of the Northwest.

I will not enlarge on the subject here, as I propose, with your permission, to forward a special communication on this particular point at some suitable time during the coming session of Congress, but I have ventured this much to show how necessary it will be to amend this law in certain particulars, in order to make it applicable to the vast number of cases which come under the head of "small holdings."

STATEHOOD.

In my report of 1890 I mentioned the steps which were being taken within the Territory, looking to the admission of New Mexico as a State. A constitutional convention had been held in September, 1889, which had formulated a constitution of unusual excellence. This was to be submitted to a vote of the people at a special election to be held on October 7, 1890. This election was held and the constitution defeated by a large majority, the vote being as follows:

Counties.	For.	Against.
Bernalillo	870	2, 073
Colfax	234	651
Dona Ana	669	1, 010
Grant	699	544
Lincoln	379	710
Mora	265	1, 536
Rio Arriba	428	1, 272
San Juan	87	182
San Miguel	790	3, 211
Santa Fé	1, 068	1, 549
Sierra	227	717
Socorro	447	1, 068
Taos	212	1, 227
Valencia	1, 118	430
Total	7, 493	16, 180
	.....	7, 493
Majority against the constitution .....	.....	8, 687

At first sight this might appear to indicate a disinclination on the part of the people to assume the condition of statehood. This, however, is not the case. The circumstances were peculiar. The apportionment of delegates in the constitutional convention, as fixed by the legislative act which provided for the latter, was considered by the Democratic party leaders to be unjust to that party. They therefore refused to take any part in the election of delegates, and directed their party friends to abstain from voting. This order was quite generally followed, so that the convention itself, with a few notable exceptions, was solidly Republican. While this condition of things, by throwing the entire responsibility of the work on one party, no doubt caused the production of a more perfect instrument than would otherwise have been drafted, yet it alienated the bulk of the Democratic party and all of its official leaders from its support, and set the whole machinery of

that party actively at work to bring about its defeat. Public speakers traversed the Territory in opposition, and easily excited prejudices among the large portion of the people who had never lived in a State, knew but little of the results of State government, and whose fears of the unknown were thus aroused against any change from the system with which they were familiar. All interests opposed to statehood, or to any particular provision of the constitution in question, worked behind the election machinery thus provided, and the result was as stated. It should be noted, however, that the political orators and party leaders most active in their opposition all repudiated the idea that they were opposed to statehood itself, and asserted that their opposition was solely to the proposed constitution and the method of its formation, and that on the main question they were as progressive as those they opposed.

The peculiar conditions then existing are not likely ever to recur, and whenever a vote shall again be taken on the subject it will be probably as nearly unanimous as is the sentiment of the people in favor of self-government.

The reasons which make it proper that New Mexico should no longer be kept in the subordinate position of a Territory have been fully set forth in my previous reports. They were, briefly, that she possesses the number of inhabitants, the resources, the taxable property, and the character of population calculated to make a successful commonwealth. All these reasons have been emphasized by the exact facts developed by the recent census. The population as returned is 153,076, while that of Idaho is 84,229, Wyoming 60,589, and Nevada 44,327. The real population, as shown last year, is over 180,000, but that is not important in this comparison, as the States referred to are similarly situated, and probably lost as large a proportion in the enumeration.

The illiteracy which has been urged as an objection is shown by the census to be greatly reduced in ratio, the number of children in school having increased over 280 per cent from 1880 to 1890, and the recently enacted public-school laws mark a long step forward in that respect. Regarded from any point of view, New Mexico is entitled to admission. We confidently look to Congress for the passage of an enabling act during the coming winter, under which we can elect a constitutional convention in May, hold its session in July (the most beautiful of months at Santa Fé), submit the constitution for adoption in September, and be admitted by proclamation in October. There is no valid reason that the great body of American citizens in New Mexico, thousands of whom fought to preserve the Union in the days of its peril, should longer be deprived of the right of participating in the government of the nation.

POPULATION.

Nothing official can be added to the full tables of population inserted in my last report. There is a gradual and healthy growth all over the Territory. The number of votes cast at the election in November, 1890, corroborated the estimate which I made of the population last year, viz, that it was between 180,000 and 185,000. The vote at successive Congressional elections shows an extraordinarily regular increase in population, the vote increasing almost exactly 1,000 each year. The following is the table:

1874.....	15, 781	1884.....	27, 086
1876.....	17, 009	1886.....	28, 589
1878.....	18, 797	1888.....	30, 510
1880.....	20, 397	1890.....	32, 355
1882.....	24, 728		

ELECTION.

An election was held in November, 1890, for Delegate in Congress and county officers. The result, so far as Delegate is concerned, was as follows:

Counties.	For Antonio Joseph.	For Mariano S. Otero.	Majority for Joseph.	Majority for Otero.	Scattering.
Bernalillo	1,390	2,042	.....	652	2
Chaves	391	39	352	.....	.....
Colfax	906	730	176	.....	.....
Doña Ana	1,031	1,020	11	.....	.....
Eddy	273	162	111	.....	.....
Grant	1,035	987	48	.....	2
Lincoln	601	361	240	.....	1
Mora	1,525	807	718	.....	.....
Rio Arriba	1,155	1,428	.....	273	.....
San Juan	310	195	115	.....	.....
San Miguel	3,386	1,908	1,478	.....	1
Santa Fé	1,571	1,504	67	.....	1
Sierra	647	530	117	.....	.....
Socorro	1,427	885	542	.....	.....
Taos	994	1,034	.....	40	.....
Valencia	564	1,510	.....	946	.....
Totals	17,206	15,142	3,975	1,911	7
	15,142	.....	1,911	.....	.....
Majority	2,064	.....	2,064	.....	.....

Total vote, 32,355.

LEGISLATION.

The twenty-ninth legislative assembly convened on December 29, 1890, and continued in session during its legal period of sixty days, finally adjourning on February 26, 1891.

While the first action of the lower house in unseating three of the regular members, the election of at least two of whom by substantial majorities of the vote cast has never been disputed, without a word of testimony or any examination of the returns, naturally caused much solicitude as to the kind of legislation that might follow, yet the general result of the session was highly satisfactory. The legislation was salutary and progressive and its beneficial effects are already being felt. In fact, it seems to be conceded that the labors of this body are of more value to the Territory and will do more to hasten its development and prosperity than those of any previous legislature.

Preëminent in their importance are the acts relating to public education. The public-school system of the Territory has been very defective. While it can not be expected that a system equal to those of most of the States can be maintained in the absence of a school fund, and the portion of the public domain set apart for that purpose is not available without Congressional action, which thus far has been refused, yet very much is accomplished by the series of acts passed by the late legislature.

Chapter 25, "An act establishing common schools, etc.," is intended to provide a complete system of public schools throughout the Territory. It unifies the whole by creating a Territorial superintendent of public instruction and a Territorial board of education.

It provides for a uniform series of text books, and for their purchase at the lowest rates; for the examination of teachers; for the incorporation of school districts; for the erection of school-houses; and, generally, for the efficient conduct of the schools.

To meet the necessary expenses it authorizes a Territorial tax of 3 mills, a district tax of 5 mills, and the bonding of districts for specified purposes by a vote of the people. In addition to this, all poll taxes,

finer, forfeitures, and all licenses paid by liquor dealers, etc., go to the school fund.

The passage of this act was looked upon as a very important step in the progress of the Territory, and was the cause of general rejoicing. In a message giving notice of his approval of the same and congratulating the legislature upon its passage, the governor drew attention to certain provisions and omissions which seemed to require correction or alteration, and the legislature promptly took action on the subject, and at the same time adopted provisions for an advanced system of instruction in incorporated cities and towns (chap. 77). Supplementary to these laws are chapter 64, "An act in relation to school books," and "An act providing school books for the penitentiary." Taken altogether the acts passed relative to public instruction at this session constitute the most important and progressive legislation that New Mexico has ever known.

Among other acts of great importance are:

(1) A high-license act (chap. 9) providing for a charge of from \$100 to \$400 for liquor licenses, which has already reduced the number of saloons to less than one-third of the number formerly in operation, and has had a most salutary effect. These licenses all go to the public-school fund.

(2) An act suppressing trusts and combinations (chap. 10).

(3) A number of acts (chaps. 14, 32, 43, 70) relative to the incorporation of cities and towns, all looking to the greater efficiency of municipal government.

(4) An act creating the office of county surveyor (chap. 33).

(5) An act modernizing somewhat the existing antiquated and cumbersome court practice (chap. 66).

(6) Several acts for the protection of live stock (chap. 78, etc.).

(7) An improved highway law (chap. 89).

(8) An act for the incorporation of community grants (chap. 86).

(9) An act providing for impartial juries, to be drawn by lot (chap. 95).

(10) An act establishing arbor day (chap. 35).

FINANCES.

The total assessed valuation of the property in the Territory in 1887 was \$45,462,459; in 1888 it was \$45,690,723; and in 1889, \$46,041,010. In 1890 the total was \$45,199,847.91; of this, \$1,972,162.25 was exempt from taxation under various Territorial laws. The valuation by counties was as follows:

Counties.	Total.	Exempt from taxation.	Subject to tax.
Bernalillo	\$5,826,872.72	\$261,600.00	\$5,565,272.00
Colfax	4,124,900.42	155,500.00	3,969,400.42
Doña Ana	3,554,951.52	139,200.00	3,415,751.52
Grant	4,902,666.50	125,100.00	4,777,566.50
Lincoln	4,366,474.00	176,400.00	4,190,074.00
Mora	1,915,311.65	123,850.00	1,791,461.65
Rio Arriba	965,328.58	65,400.00	899,928.58
San Juan	630,604.91	119,389.75	511,215.16
San Miguel	7,680,232.75	223,200.00	7,457,032.75
Santa Fé	3,149,871.60	162,900.00	2,986,971.60
Sierra	1,967,749.78	70,147.50	1,897,602.28
Socorro	4,062,322.48	148,075.00	3,914,247.48
Taos	826,519.00	87,300.00	739,219.00
Valencia	1,226,042.00	114,100.00	1,111,942.00
Total	45,199,847.91	1,972,162.25	43,227,685.66

The cause of the slight decrease in valuation was the reduction that was made generally throughout the Territory in the value of cattle. In other respects the returns show a healthy increase.

The Territorial indebtedness at the close of the forty-first fiscal year (March 3, 1891) was as follows:

Capitol building bonds, 7 per cent, due in 1904.....	\$100,000.00
Capitol building bonds, 7 per cent, due in 1905.....	100,000.00
Penitentiary building bonds, 7 per cent, due in 1894.....	120,000.00
Current expense bonds, 6 per cent, 5-20.....	150,000.00
Capital contingent bonds, 6 per cent, due in 1903.....	50,000.00
Provisional indebtedness bonds, 6 per cent, 20-30.....	200,000.00
Amount of outstanding warrants.....	146,433.03
Total	866,433.03

The expenses during the forty-first fiscal year were as follows:

Penitentiary expenses and salaries.....	\$29,663.31
Capitol current expenses.....	6,760.44
Salaries of officers.....	19,685.00
Compensation of assessors.....	13,782.43
Transportation of convicts.....	3,571.10
Territorial institutions.....	23,100.00
Court expenses.....	49,940.69
Interest on outstanding warrants.....	9,948.44
Miscellaneous, as per auditor's report.....	19,050.21
Treasurer's incidental expenses.....	174.30
Librarian's incidental expenses.....	26.85
Bureau of immigration.....	500.00
Rewards by governor.....	100.00
Printing, twenty-ninth legislative assembly.....	1,312.00
Bringing registration books.....	181.60
Printing dockets for supreme court.....	41.00
Militia.....	342.06
Hospital of Las Vegas.....	499.80
Total	178,679.23

The financial condition of New Mexico is remarkably good. The bonded debt will be reduced very soon by the purchase of about \$7,000 of penitentiary bonds, the money for which is in the treasury.

The good effects of the finance act passed in 1889 are very manifest. Some temporary inconvenience will be occasioned by the action of the late legislature in making appropriations for the present year considerably in excess of the amount of tax levied. This, however, will not affect the succeeding year, when the estimated receipts will fully equal the expense.

The assessed valuation of 1891 will considerably exceed that of 1890.

The following table, showing the value of lands and houses and of certain kinds of personal property in the different counties according to the assessment returns for 1890, is both interesting and valuable. No figures could be obtained respecting Bernalillo County at the auditor's office, but all the other counties are included in the table.

Counties.	Lands.	Houses and improve- ments.	Horses.		Mules.	
			No.	Value.	No.	Value.
Bernalillo						
Colfax	\$1,356,450.00	\$352,523.00	4,576	\$97,376	191	\$10,010
Doña Ana	880,414.00	564,440.00	3,630	81,686	118	5,080
Grant	219,884.00	1,147,952.00	5,458	127,652	257	11,067
Lincoln	742,441.00	309,214.00	13,810	269,956	564	22,622
Mora	700,998.13	73,019.50	2,270	51,190	142	4,348
Rio Arriba	114,858.00		1,202	40,249	114	4,190
San Juan	104,504.22	96,164.97	2,892	95,758	93	3,650
San Miguel	2,056,781.00	785,923.00	5,827	135,674	484	16,337
Santa Fé	793,741.60	803,222.00	723	26,783	158	7,245
Sierra	222,945.00	241,631.00	3,680	78,182	187	7,412
Socorro	613,883.00	450,074.00	5,035	128,425		8,652
Taos	211,395.00	52,309.00	1,061	21,565	144	5,474
Valencia	161,103.95	85,963.00	2,301	46,609	261	6,647
Total	7,179,398.90	4,962,435.47	52,465	1,201,105	2,713	112,734

Counties.	Cattle.		Sheep.		Goats.		Swine.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Bernalillo.....								
Colfax.....	138,202	\$1,140,994.00	95,865	\$112,458	824	\$877	474	\$1,578
Doña Aña.....	52,458	374,768.00	27,228	31,460	2,244	2,556	289	867
Grant.....	147,480	1,202,827.00	13,327	15,947	10,573	11,578	374	1,045
Lincoln.....	299,499	2,297,600.00	108,188	150,766	13,264	14,918	1,161	2,659
Mora.....	29,270	251,189.50	115,151	119,274	4,037	4,048	447	1,136
Rio Arriba.....	6,678	160,470.00	59,000	59,000	1,126	1,126	150	470
San Juan.....	17,769	231,077.00	25,633	25,841	87	107	426	1,694
San Miguel.....	149,655	1,257,761.00	263,314	280,423	6,843	7,467	482	1,471
Santa Fé.....	5,262	63,000.00	82,240	83,000	1,120	1,120	120	600
Sierra.....	77,120	579,395.00	6,637	7,225	4,177	5,208	290	1,058
Socorro.....	130,806	1,365,020.00	65,247	65,970	5,008	5,646	231	583
Taos.....	2,252	24,619.00	96,965	96,985	4,560	4,560	499	1,189
Valencia.....	72,637	447,318.00	213,454	214,254	1,912	1,916	376	1,049
Total.....	1,129,088	9,336,038.50	1,172,249	1,262,603	55,775	61,127	5,319	15,399

Counties.	Burros.		Carriages.		Wagons.		Railroads.
	No.	Value.	No.	Value.	No.	Value.	
Bernalillo.....							
Colfax.....	125	\$520.00	153	\$4,795	366	\$9,642	\$694,543.42
Doña Aña.....	94	564.00	146	7,850	274	6,977	1,250,449.52
Grant.....	52	499.00	173	11,715	482	16,540	1,179,625.51
Lincoln.....	206	1,814.00	881	30,914			
Mora.....	289	998.00	101	3,188	407	9,821	241,721.87
Rio Arriba.....	162	787.00			250	11,429	441,335.00
San Juan.....	80	841.00	28	990	267	8,344	
San Miguel.....	965	4,150.00	233	11,676	821	21,609	697,553.00
Santa Fé.....	226	1,300.00	230	6,880	240	8,400	378,500.00
Sierra.....	130	993.00	68	3,920	315	10,846	327,140.00
Socorro.....	184	947.00	173	7,382	458	12,696	903,438.28
Taos.....	220	1,025.00	60	2,000	253	6,333	200,930.00
Valencia.....	358	1,759.50	141	4,940	376	10,103	
Total.....	3,091	16,197.50	2,387	96,250	4,509	132,740	6,315,236.60

EDUCATION.

PUBLIC SCHOOLS.

In no respect is New Mexico making such progress as in public education. Even under the crude system which has existed heretofore the number of children under instruction had increased in a ratio far in advance of the population. The late census developed the fact that while the population of the Territory increased 28 per cent during the decade from 1880 to 1890, the number of children enrolled in the schools increased 283 per cent, or ten times as rapidly.

As mentioned under the head of "Legislation," the crowning work of the late legislature was that relative to public education. For the first time a regular system has been instituted, with an official head. While the laws are not yet perfect, yet they are far in advance of those which they superseded in every respect. Teachers' examinations are required and a careful supervision provided for. Districts are authorized to levy special taxes and to bond for school buildings. The money derived from licenses is devoted to education. Uniformity of school books is required, the selection being made by the Territorial board. This board consists of the governor, superintendent of public instruction, and the presidents of the University, the Agricultural College, and St. Michael's College.

The law has gone into operation so recently that its effects can not be seen in statistics. But they are already very apparent in the general character of our educational work.

Immediately after the passage of the new law, in February last, Hon. Amado Chaves was appointed Territorial superintendent, and has entered upon the work with great zeal and enthusiasm.

Many school-houses are being erected. The grade and character of teachers are greatly improved. The adoption of uniform books has not only insured a better class of works, but has greatly reduced the price.

The new act requires regular reports to be made by the county superintendents to the Territorial superintendent, so that hereafter accurate statistics can be furnished. At present, however, they are far from perfect or satisfactory. The following table is the best that can be prepared from data received from the various counties, but in several cases the figures of last year have had to be used, and such are designated by an asterisk (*); others that are estimated are marked by a dagger (†). It is far from accurate, and the column of "pupils enrolled" and of "tax" are specially unsatisfactory. In the latter some of the counties have included license fees and some have not, so that it is not a correct guide; and in the former it is evident that in some counties the total number of children of school age has been returned as the number enrolled.

Public schools.

Counties.	Schools.	Taught in Eng-lish.	Taught in Span-ish.	Taught in both languages.	Public school-houses.	Male teachers.	Female teachers.	Pupils enrolled.	Average daily attendance.	Amount regular taxation.	Amount raised by poll tax.
Bernalillo	47	*4	*28	*14	-----	32	15	†2,400	1,620	\$16,000	\$2,000
Chaves.....	2	1	-----	1	2	2	2	245	153	3,442	73
Colfax.....	34	15	-----	19	-----	17	17	2,739	1,800	10,000	500
Doña Ana.....	24	18	5	1	1	12	15	818	585	8,000	*350
Eddy.....	9	†7	(†)	†2	†4	†3	†4	457	†300	2,915	†150
Grant.....	27	22	1	4	19	14	25	†1,000	†600	13,000	†2,000
Lincoln	37	31	6	-----	22	16	18	790	660	5,400	700
Mora.....	51	3	1	47	8	40	11	†2,000	*1,500	†4,700	*191
Rio Arriba.....	35	-----	25	10	-----	35	-----	*1,000	*650	*2,940	†400
San Juan	17	14	-----	3	6	8	9	430	302	1,075	261
San Miguel.....	90	18	18	54	28	70	20	4,600	3,900	14,245	1,943
Sante Fé*.....	26	7	4	15	5	20	9	1,071	794	7,682	733
Sierra.....	10	6	-----	4	6	7	5	584	261	7,231	412
Socorro.....	48	15	17	16	16	32	18	1,835	1,143	10,654	2,400
Taos.....	36	4	-----	32	3	31	5	1,764	*1,125	1,531	2,310
Valencia	40	4	30	6	12	34	6	3,034	1,825	*6,500	825
Total.....	533	169	135	228	132	373	179	24,767	17,218	115,315	15,248

The most immediate results of the new legislation are seen in the larger towns. Naturally, they are the first to feel the impulse; but there is the additional reason that under the present law license money is to be used in the precincts in which it is collected, and this supplies the towns with liberal funds, while the remoter districts receive nothing from this source.

In East Las Vegas a beautiful stone school-house has just been erected, and five other districts in San Miguel County have voted bonds for a similar purpose. In Albuquerque the schools have just opened, with twelve teachers, under a city superintendent. From Raton to Deming and from Roswell to the San Juan commodious buildings are being erected, and in the rural districts, as well as in the towns, the spirit of progress is aroused, and improvements are everywhere being made. Perhaps the most active work under the new law has been done in San Miguel County, which is itself as large as some Eastern States,

and contains eighty-three precincts. In order to have the new provisions understood the county superintendent, Mr. C. F. Rudolph, called a meeting of the district school directors for April 20, and this was attended by 171 directors out of a total of 249, all the precincts but five being represented. This was followed by a normal school, which continued from June 22 to July 17, and to which all those expecting to teach were invited. No less than 57 attended, and the result was very encouraging. Writing of this normal school, or teachers' institute, Mayor Henry, of East Las Vegas, says: "The first teachers' institute ever held in New Mexico convened at Las Vegas in June and continued in session for four weeks. There were about 50 native teachers in attendance, 27 of whom met at the Academy, 15 at the La Salle Institute, and 8 at the Sisters' Convent. It was remarked by several of the most prominent educators of San Miguel County that the zeal and earnestness manifested by these native teachers in school and educational matters is one of the most hopeful signs for the future of New Mexico. It was a grand success in every respect. Prof. Ramsay, of the Academy, Brother David, of the La Salle Institute, and the lady teachers of the Sister's Convent assisted daily in conducting the exercises and recitations during the entire term of four weeks, none of them making any charge for their services or for the use of the buildings."

These matters are mentioned as they show the spirit with which the new system is received, and are the foundations of much that is to come.

TERRITORIAL INSTITUTIONS.

Under the head of "Public buildings" the three Territorial educational institutions have been referred to. They are the University at Albuquerque, the Agricultural College at Las Cruces, and the School of Mines at Socorro. The Agricultural College is in full operation in its commodious and beautiful building at Mesilla Park. The very liberal donations from the National Government, both to the college and the experiment station connected with it, give to this institution great advantages. The University building is just completed, and it is intended that it shall be opened during the coming winter, probably as a normal school, as the lack of such an institution is painfully felt. The laboratory building for the School of Mines, which will amply be sufficient for all present requirements of the school, is in course of erection and will be a very creditable structure. It will not be ready for use until the fall of 1892.

The school for the deaf and dumb at Santa Fé has been successfully conducted during the year. It is about to remove to a larger and better building, and 15 inmates are expected for the next year.

There is also an orphans' home and industrial school at Santa Fé, sustained by an annual appropriation of \$5,000.

PRIVATE SCHOOLS.

The private schools are mostly sustained by religious denominations or societies.

The Christian Brothers (Roman Catholic) carry on St. Michael's College, which has 73 boarders and 108 day scholars. This is located at Santa Fé, but they also conduct schools at Las Vegas and Bernalillo, the former having 120 scholars.

The Sisters of Loretto have institutions at the following places:

Place.	Teach- ers.	Girls.	Boys.
Santa Fé	10	250	.....
Taos	4	65	30
Mora	4	85	.....
Las Vegas	6	160	.....
Bernalillo	5	140	.....
Socorro	5	60	50
Las Cruces	6	75	45
	40	835	125

The Sisters of Charity conduct the following schools: Albuquerque (old town)—4 teachers, 120 girls, 85 boys. Albuquerque (new town)—7 teachers, 210 girls, 65 boys. San Miguel—5 teachers, 100 girls, 150 boys. Santa Fé Orphan Industrial School—2 teachers, 50 girls, 2 boys.

The Sisters of Mercy carry on a school at Los Alamos with 4 teachers and 50 scholars.

St. Michael's College, at Santa Fé, above referred to, draws scholars from a number of States outside of New Mexico, and possesses a mineral cabinet containing specimens from nearly every mine of importance in the Territory, a complete chemical laboratory, and an assay department.

The following is the report of the schools carried on by the Presbyterian Board of Home Missions:

CLASS 1.—*Day schools for Mexican children.*

No.	Name of school.	Teach- ers.	Pupils.	Estab- lished.	Value of property.
1	Las Cruces	1	25	1878	\$1,000
2	Pajarito	1	50	1884	1,800
3	Albuquerque	1	20	1888	250
4	Corrales	1	25	1878	1,500
5	Capulin	1	25	1887	2,000
6	Jemes Hot Springs	1	24	1881	2,000
7	Santa Fé	1	70	1867	1,000
8	Glorieta	1	20	1881	200
9	Chaperito	1	50	1889	1,000
10	Raton	2	50	1887	1,000
11	Los Alamos	1	20	188-	200
12	Buena Vista	1	30	1888	225
13	Rociada	1	15	1887	275
14	Ocate	2	30	1881	1,000
15	Agua Negra	1	15	1881	1,000
16	El Rito	1	30	1883	1,000
17	Agua de Lobo	1	20	1889	250
18	Prado de Taos	2	60	1883	250
19	Fernandez de Taos	2	66	1873	1,000
20	Ranchos de Taos	2	60	1881	1,000
21	Arroyo Seco	1	15	1889	250
22	El Llano	1	15	1884	250
23	Penasco	1	20	1884	275
24	Embudo	1	30	1887	250
25	Juan Tafoya	1	25	1891	.....
26	Pena Blanca	1	40	1891	.....
27	Las Valles	1	30	1891	.....
	Total	32	880	.....	19,225

CLASS 2.—*Boarding schools for Mexican children.*

Name of school.	Teach- ers.	Pupils.	Estab- lished.	Value of property.
Santa Fé	6	75	1883	\$20,000
Las Vegas	5	70	188-	10,000
	11	145	.....	30,000

CLASS 3.—*Day schools for Indian children.*

Name of school.	Teachers.	Pupils.	Established.	Value of property.
Isleta.....	2	25	1882	\$275
Zuñi.....	2	20	1877	1,500
Laguna.....	1	40	1876	300
Jemes.....	2	30	1877	2,000
	7	115	.....	4,075

CLASS 4.—*Boarding school for Indian children.*

Albuquerque, 10 teachers ; 70 pupils ; established, 1880 ; value of property, \$15,000

CLASS 5.—*Pay school for American children.*

Santa Fé Academy, 3 teachers ; 70 pupils ; established, 1867 ; value of property, \$300.

General summary—Classes 1 to 5.

Classes.	Schools.	Teachers.	Pupils.	Value of property.
Day schools for Mexicans.....	27	32	880	\$19,225
Boarding schools for Mexicans.....	3	15	205	30,000
Day schools for Indians.....	4	7	115	4,075
Pay school for Americans.....	1	3	70	300
Total	35	57	1,270	53,600

These were all carried on during the past year, but the Indian school and Santa Fé Academy are now suspended.

The following are the Methodist mission schools:

Place.	Scholars.	Place.	Scholars.
Tiptonville.....	40	Taos.....	30
Peralta.....	32	Tramperas.....	26
Dona Ana.....	30	Ranchito.....	50
Española.....	25	Costillo.....	25
La Joya.....	25		
Socorro.....	70		353

The Albuquerque College (Methodist) is temporarily closed, the improved public schools having met the requirements there to a good extent. It is intended to reopen it hereafter for higher education.

The New West Educational Commission reports as follows regarding the institutions of which it has charge:

	Teachers.	Pupils.
Academies:		
Albuquerque.....	10	491
Las Vegas.....	11	477
Tuition schools:		
Deming.....	2	62
White Oaks.....	1	32
Free schools:		
Santa Fé.....	5	230
San Rafael.....	1	66

Albuquerque has two distinctive Mexican departments, one in the Academy building and the other at Barelás, in which are 160 Mexican children. Las Vegas Academy has a branch Mexican school at Upper Vegas, besides an enrollment of Mexican pupils in all the rooms of the academy proper. The total number thus receiving instruction is 155.

There are a number of other academies and schools, sustained by various religious bodies, the seminary at Las Vegas, in charge of the Southern Methodists being prominent among them, of which I have not been able to obtain the statistics in time for this report. But all are doing good work towards the general education of the youth of the Territory. Probably the most successful private school which is not denominational is the Goss Military Institute, a boarding school for boys, which has just commenced its career, at Roswell. It has 45 students already in attendance, with a prospect of a rapid increase.

THE PUBLIC LANDS.

THE LAND OFFICES.

During the year ending June 30, 1891, the entries at the several land offices were as follows:

	Santa Fé.		Las Cruces.		Folsom.		Roswell.	
	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.
Homestead entries.....	154	22,319.43	147	21,188.69	84	13,248.91	142	21,536.74
Preëemption filings.....	71	11,360.00	78	10,504.79	65	10,400.00	50	8,000.00
Timber-culture entries.....	22	3,090.72	12	1,793.10	36	5,757.31	27	4,320.00
Desert-land entries.....	65	4,052.76	8	1,575.63	1	320.00	76	16,027.66
Coal entries.....	61	9,820.00	1	160.00	1	160.00	.....	.....
Mineral entries.....	3	184.26	18	398.95	.....	.....	.....	.....
Town-site entry.....	1	160.00	.....	.....	.....	.....	.....	.....
$\frac{1}{2}$ railroad selections.....	1,152	184,255.12	.....	.....	.....	.....	.....	.....
Total.....	1,529	235,242.29	264	35,621.16	187	29,886.22	295	49,884.40

Making the aggregate for the entire Territory as follows:

	No.	Acres.
Homestead entries.....	527	78,293.77
Preëemption filings.....	264	40,264.79
Timber-culture entries.....	97	14,961.12
Desert-land entries.....	150	21,976.05
Coal-land entries.....	63	10,140.00
Mineral entries.....	21	583.21
Town-site entry.....	1	160.00
$\frac{1}{2}$ railroad selections.....	1,152	184,255.12
Total.....	2,275	350,634.07

Final action was taken in the following cases:

	Santa Fé.		Las Cruces.		Folsom.		Roswell.	
	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.
Homestead cases.....	82	12,712.04	87	12,473.58	26	4,159.67	46	7,195.43
Preëemption cases.....	48	6,527.00	62	6,537.28	63	9,698.02	76	10,057.04
Timber-culture cases.....	.....	.....	.....	.....	.....	.....	2	320.00
Desert-land cases.....	1	480.00	8	2,160.64	.....	.....	28	14,817.74
Coal-land cases.....	4	570.90	.....	.....	.....	.....	.....	.....
Mineral cases.....	4	59.36	15	284.56	.....	.....	.....	.....
M. B. warrant location.....	.....	.....	.....	.....	1	160.00	.....	.....
Total.....	139	20,349.39	172	21,456.06	90	14,017.69	152	32,390.21

The aggregate being as follows:

	No.	Acres.
Homestead cases.....	241	36,540.72
Preemption filings.....	249	32,819.34
Timber-culture cases.....	2	320.00
Desert-land cases.....	37	17,458.38
Coal-land cases.....	4	570.90
Mineral-land cases.....	19	343.92
M. B. warrant location.....	1	160.00
Total.....	553	88,213.26

PUBLIC SURVEYS.

The total number of miles surveyed during the year was 880. The number of plats of various kinds made in the surveyor-general's office during the year was 360. Applications for the survey of mineral claims, in order to obtain patents, have been made in 65 cases, which largely exceeds the number in previous years, and indicates increased prosperity in mining matters in the Territory.

One matter of considerable importance I wish to bring to your attention with a view to early action. I refer to the unsettled eastern boundary line of New Mexico which separates it from Texas and the public land strip (No Man's Land). This line is fixed at the one hundred and third meridian, but the exact location of that meridian has never been definitely settled. The consequence is that there is a strip of considerable width that is claimed by both Texas and New Mexico. This creates difficulties of various kinds. Property in some cases is taxed in both jurisdictions, and much more frequently escapes any taxation whatever. A more serious matter is the administration of justice in the disputed district, and the difficulty of making arrests when the authority is uncertain. It naturally becomes a place of refuge for criminals and fugitives. Five of our counties, Colfax, Mora, San Miguel, Chaves, and Eddy, are seriously affected by the unsettled condition of this boundary, and I respectfully urge that steps be taken as early as practicable to establish it definitely and have it marked by conspicuous monuments.

PECOS NATIONAL PARK.

A year ago I referred to the proposition to set apart a portion of the mountainous district on the upper Pecos as a national park, and heartily indorsed the project. Our people are very anxious that action should be taken on this subject, and have expressed their desires in numerous signed petitions. The only opposition arose from a few settlers in one of the townships, who erroneously imagined that the establishment would interfere with their vested rights. To meet the objection, the boundaries proposed have been changed so as not to affect the parties at all. The townships now included in the recommendation of the surveyor-general on this subject are the following: Townships 17, 18, 19, and 20 north, range 11 east; townships 19, 20, 21, and the north half of township 18 north, range 12 east; and townships 17, 18, 19, 20, and 21 north, range 13 east. No more beautiful tract could be imagined. The scenery is magnificent, the climate admirable, the hunting and fishing exceptionably good, and, if looked at from a more practical point of view, the preservation of the timber is essential to the successful irrigation of the fertile lands of the Pecos Valley. I

heartily concur in the hope that these townships may be speedily withdrawn from entry, that no damage may be done or new private rights intervene before Congressional action can be had. Dr. Duncan, president of the American Health Resort Association, who has recently visited New Mexico to examine its qualifications as a resort for invalids, says: "We believe that it will be wise, especially from a health point, if the upper waters of many of the rivers, especially the Pecos, were set apart as a national park. The forests that line the mountain sides should not be destroyed, but rather increased."

CLIMATE AND RAINFALL.

So far as its delightful character is concerned there is no climate equal to New Mexico in America, and perhaps in the world. So much has been written of its sanitary characteristics that it seems unnecessary to recapitulate the facts. The percentage of deaths from pulmonary disease is lower than at any other point from which we have statistics. There can be no doubt that in time New Mexico will be recognized as the sanitarium of the western continent.

For those in good health, nothing can be more delightful than the summer climate of Santa Fé, Las Vegas, Hot Springs, and similar resorts of high altitude, and in the winter the whole Territory is an agreeable place of residence.

There is but one station of the Weather Bureau in New Mexico, that being at Santa Fé, where observations have been taken since 1872. The following is the report of temperature and precipitation of moisture at that point for the past year:

Month.	Temperature.			Precipitation.	Month.	Temperature			Precipitation.
	Max.	Min.	Mean.			Max.	Min.	Mean.	
1890.				<i>Inches.</i>	1891.				<i>Inches</i>
July	90	48	69.8	2.46	January.....	42	— 1	22.7	1.32
August	88	47	67.2	1.49	February	50	— 6	29.5	1.91
September	82	42	61.0	.89	March.....	63	9	36.4	.59
October	72	29	50.0	.93	April	74	18	46.4	.17
November.....	65	18	39.6	1.31	May.....	74	30	52.9	3.21
December.....	52	15	34.6	1.60	June.....	84	38	62.6	1.26

For these figures I am indebted to H. B. Hersey, esq., observer in charge. The rainfall in May was the greatest recorded for that month during the twenty years of observations.

The precipitation during each month from 1872 to 1888 will be found in my report for 1889. As this subject is much discussed at present in connection with irrigation enterprises, it seems desirable to repeat the aggregate of precipitation at Santa Fé each year. The figures are as follows:

1872.....	9.87	1881.....	21.75
1873.....	9.53	1882.....	11.37
1874.....	19.83	1885.....	14.89
1875.....	18.97	1886.....	15.90
1876.....	15.02	1887.....	13.38
1877.....	13.85	1888.....	12.03
1878.....	19.52	1889.....	17.89
1879.....	11.44	1890.....	12.88
1880.....	9.89		

A Territorial weather service is now being established, with voluntary observers, covering all parts of the Territory, and with a central

office in Santa Fé, under the supervision of the U. S. Weather Bureau. It is believed that this will be of great benefit in furnishing data regarding the local climatic conditions existing in different sections, for use in determining the varieties of fruits and cereals adapted to different localities, and the amount of rainfall available for use in making estimates for irrigation enterprises, etc.

IRRIGATION.

No subject is of greater importance to New Mexico than this. The future of the Territory depends very largely on the increase of its area of cultivated land through comprehensive systems of irrigation. But the subject has been so fully considered in preceding reports that I will only refer briefly to what is actually being accomplished. In the southwest the magnificent system on the Pecos River, in the vicinity of Eddy, is in full operation. The system somewhat higher up in the same valley, in the vicinity of Roswell, is partly completed and partly in course of construction. Too much can not be said of the wonderful water supply of this valley.

In the northeast are two systems on the Maxwell grant, which have been previously described. A carefully prepared report relative to the irrigation of this section, by Mr. L. S. Preston, the engineer of the Maxwell Land Grant Company, is inserted below, and will be found to contain much matter of general interest on the subject.

In the northwest, in San Juan County, the water supply when utilized is more than ample, the flow in the San Juan and Animas rivers especially being very large and constant. Mr. J. G. Kello, who is a very competent authority, writes as follows:

In San Juan County there are approximately 200 miles of main ditches, covering about 24,000 acres of land. About 175 miles of these are owned and operated by the farmers themselves, and are partnership ditches and not incorporated, nor is the water sold. About 25 miles of ditch is incorporated. This length of ditches is all under operation, and there are from 30 to 50 miles of uncompleted ditches, partly finished, but not in operation. We estimate here that it takes at least 1 cubic foot of water, running day and night, to irrigate 160 acres; but this depends largely on the kind of crop, the amount of rainfall, and the kind of soil, so that it is difficult to make a general standard. I think that the average cost here per acre for water throughout the county is about 75 cents.

In the southwest the progress of the work in the Mimbres Valley is very encouraging. The Mimbres and Deming Canal and the water-works at Deming are now far advanced; the canal is completed from the Mimbres 8 miles toward Deming, and the deep cut under the Mimbres River, from which this canal will be supplied with a permanent flow of water, is also nearly half finished. The large shaft for the water-works at Deming is completed, and the heavy machinery is now on the ground. The work on the 30,000,000-gallon reservoir has been commenced, and that enterprise will, no doubt, be successfully accomplished within the next sixty or ninety days.

These may be said to be in the four corners of the Territory. But the great central regions are not to be left without the needed water supply. More than fifty companies have been organized for irrigation purposes, and several are already in operation. The valley of the Rio Grande presents the most extensive field for operations of this kind, as the present narrow strip of cultivated land can be widened very materially by a proper disposition of the water which flows so abundantly from the north and is now allowed to be wasted. The Rio Grande Irrigation and Colonization Company have been engaged for some time

in making careful surveys preparatory to the construction of a comprehensive system of irrigation extending from Peña Blanca southward through the center of the Territory. Work was to have been commenced some time ago, but the preliminary surveys developed certain matters which required more careful investigation as to the route to be followed, and this has caused delay. It is expected, however, that before the end of the year the work of constructing the great ditches proposed for this purpose will be in active progress. In short, a very few years will find all the water, now suffered uselessly to run away, utilized in the highest degree, and enlarging the area of agricultural and horticultural land to an extent almost fabulous.

Meanwhile individual enterprise is increasing the local supplies by the erection of multitudes of windmills, and this present year marks an era in our industrial history as that in which the first successful artesian wells were produced in widely separated portions of the Territory, near Springer in the northeast and at Roswell in the southeast. These prove the existence of great bodies of water ready to cause an artesian flow underlying a great portion of New Mexico, and will encourage the boring of the necessary wells to bring it to the surface.

The Santa Fé Irrigation Company intends to store the water which flows from the mountains east of the capital, and to afford irrigation to the large valley lying south and west of the city. This is a tract of considerable extent and great fertility, especially adapted to fruit culture, and presents a magnificent field for such an enterprise.

The following is the statement of Mr. Preston relative to irrigation on the Maxwell land grant in Colfax County:

Our source of water supply for irrigation purposes is very similar to that of the whole of New Mexico, excepting the Rio Grande Valley only. Our rivers run a small stream during the fall and winter months, till the snows in the mountains begin to melt in February or March, as the season be late or early, and by April 1 our streams are running bank full, continuing so for about sixty days. From the middle of June to the middle of July our rivers are nearly dry water courses, at which time the summer thunder-heads or water spouts begin, which change the dry channel into a raging torrent from one-half to one-quarter of a mile wide and 10 to 15 feet deep, often discharging as much water in twelve hours' time as has passed down the channel during two weeks, when at its highest spring rise or during three months of low fall and winter flow.

The nature of our drainage areas or hydrographical basin differ here, on the Maxwell Grant as elsewhere in the Territory, from the high mountain region where the precipitation is approximately 30 inches per annum, and where the irrigation value for a given area is about 50 per cent of said area, that is, if all the precipitation for a mountain area of, say, 2,000 acres was collected in a storage reservoir, the drainage for that area for one year so collected would be sufficient to irrigate 1,000 acres of prairie lands during the growing season; it is needless to say that the areas of the drainage basin having such an irrigation value are of very limited extent in New Mexico. The average for foothill and park region drainage basins will probably average 20 per cent of the said areas in irrigation value where the rainfall is from 12 to 15 inches annually; at least this is the result of our observations gained by gauging the different streams on the grant, where the exact drainage areas are known.

But for drainage areas located entirely on the prairie where the average precipitation does not exceed 10 or 12 inches annually, it would scarcely be safe to estimate at an irrigation value of over 5 per cent of said area, on account of the greater loss by seepage and evaporation being much greater than in the foothill or mesa region.

With the view to utilize the steady flow, and to catch and store such of the spring rise and summer floods as might be carried in a ditch of moderate capacity from both the Cimarron and Vermejo rivers, preliminary surveys were begun in 1887, locating ditch lines across the prairie lands at eastern base of the mesas of foothills, and connecting these streams with prairie lakes, which later on were improved by drainage cuts and embankments, forming storage reservoirs of considerable extent. Construction work began in 1888, and the greater portion of both the Vermejo and Springer systems were completed in the spring of 1889.

The average elevation of both the Springer and Vermejo systems is about 6,100

feet. Soil, sandy loam to red clay. Slope to the southeast, with a fall of about 15 feet to the mile. Geological formation, Colorado group of the Cretaceous, about 600 feet below the Coal Measures, and 400 to 600 feet above the Dakota sandstone, which carries our supply of artesian water in this locality.

The Springer system has 10 miles of main canal, 20 feet wide on bottom and 4 feet deep, and 40 miles of smaller canals and laterals, from 8 to 16 feet wide and 2 to 3 feet deep. All these canals have a uniform grade, 5.28 feet per mile, with easy and uniform curves. Several drops were necessary to pass from higher to lower levels, or prairie benches; these are arranged with wood-work, in some cases having a vertical drop of 16 feet, onto a water apron; others are arranged with a long chute or flume several hundred feet in length, and having a heavy grade. This system has one large reservoir covering 475 acres, with the greatest depth of 24 feet, and having a total capacity of 5,000 acre feet. There are four other smaller reservoirs, with an additional capacity of about 2,000 acre feet, and several lake beds not yet improved. This system covers 22,000 acres of light, sandy prairie land between the Cimarron and Red rivers, and surrounding the small but growing town of Springer, the county seat of Colfax.

The Vermejo system has 12 miles of 20-foot canal, and about 45 miles of 8 to 16-foot canals and laterals. There are twenty lake basins under this system, ten of which have been improved as reservoirs, having a storage capacity of from 200 to 3,000 acre feet, and a total capacity for all the reservoirs of 10,300 acre feet. On this system, we have 150 feet of Allen's wooden siphon pipe, 6 feet inside diameter, the same length of Laybourn's patent iron flume 8 feet wide and 4 feet deep, masonry dams and culverts, cast iron outlet gates to reservoirs, drops of facines or wicker-work aprons with cobblestone riprapping, and other substantial and permanent structures. This system covers 30,000 acres of rolling prairie land, north of the Vermejo and west of the Red River. Maxwell City, a new town on the Santa Fé Railroad, is located on the eastern edge of this system.

These two systems, covering some 52,000 acres of land, have been brought to the present state of development at a total expense of about \$150,000, or less than \$3 per acre.

The effective value of all these canals and prairie reservoirs has been to collect the spring rise and low perennial flow of these two streams, while a very small per cent only of the summer flood water is as yet utilized, leaving still three sources of water supply practically untouched: First, these summer torrents, described above; second, the underflow through the quicksand and coarse gravel beds below the present river channel; and third, the artesian flow in the porous sandstone of the Dakota group, which crop at the surface all along the eastern base of the Costilla and Taos ranges, dip deep under the foothills and first prairie region to crop out again along the walls of Red River Cañon 10 or 20 miles southeast of Springer.

To catch and store the summer flood water more than half a dozen large mountain reservoirs, with proposed dams from 75 to 200 feet in height, and with areas of from 500 to 5,000 acres, have already been located and considerable detail work done, from which careful estimates have been made, going to prove the economic value of such storage reservoirs, even at the present low price of irrigable lands in New Mexico.

To collect some of the sheet water or bed rock underflow (the existence of which in considerable quantities is proven not only by wells along the river bottom, but by observation of the streams themselves, where the flow at our gauging stations located at the mouth of the cañons is less than that several miles above, while in places a stream of 10 or 15 cubic feet per second will disappear in the sands entirely to rise again in the form of springs a mile or so below) we have in contemplation a sheet-pile dam to extend across the entire river bottom and carried down to bed rock. This dam will be completed this fall on the Vermejo River and, if successful, others will follow shortly.

As to the artesian flow, one well only has been sunk, and that by private enterprise. This well is located 5 miles southeast of Springer, at the forks of the Cimarron and Red rivers, and struck a flowing stream at 250 feet deep, which has continued to flow without any diminution for the past twelve months, supplying a stream of about one-half cubic foot per second from an 8-inch pipe. Other drills are now at work at three or four different points, and before many months we expect to know something more of the area of this artesian basin, and also of the amount of its water supply.

In selling the lands under these irrigating systems, the Maxwell Company has in view the ultimate ownership of the ditch and reservoir system by the owners and cultivators of the land. A perpetual water right is sold with each tract of land, with no future entailment other than a small annual assessment for repairs and maintenance of the system; in fact, each land buyer becomes a joint owner of the ditch system. When the lands are all sold under either system the Maxwell Company has the right to turn over all the canals and reservoirs to the land and water owners under that system, the reservoirs and main canals being considered as common property until that time.

With our system of prairie reservoirs we have the water service well in hand, serving the water direct from the main canals during time of high water, and in the dry season serving from the reservoirs, at such times as is needed only. So far water has been served for twelve or fourteen hours each day when distributed from reservoirs, and shut off at night, thus preventing a vast amount of waste. A system of measuring weirs has been introduced and a daily record kept by the ditch-rider, and from this data some knowledge of the actual amount of water required to irrigate an acre of land can be obtained, and when the time comes to introduce the time system of distribution, as is done in parts of Utah and California, we hope to reduce the distribution of water to something of a system. One thing, however, which our farmers of both New Mexico and Colorado will have to learn will be to discard the present wasteful method of irrigating by simply throwing the water in running streams over the face of the land and to substitute the system of beds or checks, as used for garden purposes in New Mexico, and on a large scale for all crops in southern California, Old Mexico, Spain, and elsewhere. The extra expense of throwing up small back furrows or ridges around tracts of from 1 to 5 acres in extent will soon be much more than compensated for by the smaller quantity of water required and the greater efficiency of the amount used.

Another item our company is taking up is that of encouraging the several settlers to construct private reservoirs on their own lands for the purpose of collecting flood waters from the rains which fall on the prairies, and also to be filled in time of high water in the streams and thus increase to no small extent the total storage capacity of the system.

The following is the list of the irrigation companies which have filed articles of incorporation between September 1, 1890, and August 1, 1891:

The Pope Land and Irrigation Company. Locality: East side of Pecos River, in Eddy County and Texas.

Apache Valley Irrigation Company. Locality: Apache Valley, Colfax County.

The San Mateo Irrigation Company. Locality: San Mateo River.

The Rio Grande Land and Irrigation Company. Locality: East side of Rio Grande, in Sierra and Dona Ana counties.

The Sacramento Irrigation Company. Locality: Sacramento River.

Mimbres and Deming Ditch and Pipe Line Company. Locality: Mimbres River, Grant County.

The Puerto de Luna Ditch and Colonization Company. Locality: Pecos River, San Miguel County.

Bosque Redondo Irrigation Company. Locality: Pecos River, San Miguel and Chaves counties.

Rio Grande Interstate Land and Improvement Company. Locality: East side Rio Grande, from 200 yards below Earham Bridge to south boundary of Refugio Grant, about 18 miles.

The Felix Land and Water Company. Locality: Rio Felix, Lincoln and Chaves counties.

The Mimbres and Deming Canal Company. Locality: Mimbres River, Grant County.

The Tijeras Water Company. Locality: Tijeras Cañon, Bernalillo County.

The La Plata Ditch Company. Locality: La Plata River, San Juan County.

The Santa Fé Irrigation Company. Locality: South side Rio Santa Fé, Santa Fé County.

AGRICULTURE AND HORTICULTURE.

The advance of the Territory in both these important branches of industry is very marked. Last year I reported that we were importing over 10,000 tons of wheat and flour, over 8,000 tons of corn and meal, about 3,500 tons of oats, and over 8,000 tons of hay. A spirit seems to be manifest to supply this great deficiency ourselves, and place New Mexico in the position, to which she is entitled by her soil and climate, of an exporting instead of an importing State. The acreage of every staple product is very greatly increased. This is not confined to any one locality, but is general in all sections. A correspondent in the extreme northwest says:

Our acreage has increased fully 20 per cent, and new ditches now being constructed will cause a still larger gain next year. A new flouring mill is just erected; self-binders are seen where heretofore the hand cradle was used; steam thrashers have taken the place of sheep and goats, as well as of horse-power machines. The people have dropped old styles of farming and are using all modern facilities.

In hay production the increase is specially marked. Alfalfa is a success in all parts of the Territory, three crops being harvested in the north and four in the south. New fields appear at intervals all along the Rio Grande Valley. At Roswell and other points on the Pecos there is an immense crop, frequently reaching 7 tons to the acre. In San Juan County, in the extreme northwest, the product of the year is not less than 16,000 tons, many of the farmers having from 100 to 200 tons, and one estimating his great stacks to contain at least 550 tons. Timothy and other grasses are being introduced extensively in various sections, and especially in Mora and San Miguel counties. In the latter it is calculated that there are now fully 5,000 acres of timothy where three years ago there was scarcely any cultivated.

Turning to horticulture, the advance is even more noticeable. Those familiar with the Territory long ago agreed that New Mexico was ultimately to be the great fruit-raising State. Nowhere do all the fruits of the temperate zone arrive at such perfection as here. They have the size and beauty of those of California, with the high flavor unknown on the Pacific slope. This industry is a comparatively new one here, most of the orchards being young and only partially in bearing. The product is consequently increasing largely each year. San Juan County, which ten years ago was only occupied by cattle, now contains 500 acres of orchard, about half of which was planted this year, and is sending to market this fall over 500,000 pounds of peaches, 250,000 of apples, and 100,000 of other fruits. Santa Fé County is producing 600,000 pounds of apples and 300,000 of other fruits. A count just made in Socorro County shows that it contains 100,000 fruit trees and 480,000 grape vines; one single orchard, raised entirely without irrigation, contains over 7,000 trees, many of which were planted this year. This fall, for the first time, grapes have been shipped from Las Cruces in carload lots, and the melon crop of the Mesilla Valley is a new element of much importance. In Taos County fully 8,000 trees have been added to the orchards during the year. In Doña Ana, Judge Woods has planted 4,200; H. Casad, 2,400; Dr. Bailey, 1,500, and other fruit growers will bring the aggregate up to 12,000. A number of new orchards have been started and older ones enlarged in Colfax, Santa Fé, and Grant counties, along the Pecos Valley, and in fact all over the Territory. A careful estimate made by the most competent authority shows that the number of fruit trees planted this year does not fall below 200,000, about 50,000 being supplied by one single New Mexican nursery. The finest varieties of foreign grapes are now raised not only in the Mesilla Valley, but along the Rio Grande in Bernalillo and Valencia counties, and in the vicinity of Farmington. The greatly increased product of fruit makes a canning factory a necessity, and one can be profitably established at almost any central point.

STOCK RAISING.

CATTLE.

The number of cattle returned for taxation in 1890 was 1,129,088. Owing to considerable losses in some localities during the winter, it is probable that the number has not increased in the meantime.

Mr. Geo. L. Brooks, secretary of the Territorial Cattle Sanitary Board, reports that 2,200 cattle were brought into New Mexico from January 1 to August 1, 1891. Between March 15 and August 1 the number shipped out by railroad was 59,000; driven out, 10,285; passed through, 3,256; slaughtered by butchers, 5,891.

Messrs. Brown & Manzanares, who are excellent authority, quote the prices as follows:

Yearlings	\$6 to \$9
Two years old	8 to 14
Three years and over	12 to 20
Stock cattle	8 to 16

Mr. H. T. Vaille, secretary of the Las Vegas Commercial Club, reports them as follows:

Yearlings	\$8 to \$10
Two years old	12 to 14
Three years old	14 to 18

SHEEP.

The sheep industry is exceedingly prosperous. Although a very large number of wethers have been sold out of the Territory for mutton, yet the increase of lambs has been large and has fully made up the loss by shipments. Prices have been good. Secretary Vaille gives the following:

Yearling wethers	\$1.25
Older wethers	2.50

Messrs. Browne & Manzanares state the prices to be \$1.50 to \$3, averaging \$2 to \$2.50.

The wool business was never better so far as the producers are concerned. The crop was large and prices good.

Mr. T. D. Burns gives average price in the northwest at 16 cents; Secretary Vaille says average at Las Vegas was $16\frac{1}{2}$ to $17\frac{1}{2}$; Charles Ilfeld, a large purchaser, gives $17\frac{3}{4}$ as average price paid the sheep owner; Browne & Manzanares say 12 cents for common and 15 to 19 for improved; the average in the northeast, as shown by the statement of Mr. Baca, was fully $18\frac{1}{2}$ cents. It is difficult to ascertain with precision the total amount of the wool crop on account of the extravagant claims of localities; but unless they are very erroneous it can not be less than 16,000,000 pounds. The shipments from Colfax, Mora, Rio, Arriba, and Taos counties could not be less than 4,000,000 pounds; and those from Las Vegas, Albuquerque, and other points south of the above counties, must have aggregated at least 12,000,000 pounds.

I annex a statement prepared by Mr. Luis A. C. de Baca, of Mora, relative to the sheep, etc., in the easterly section of that county, because it gives accurate figures. It should be added, however, that the increase of lambs reported there is much less than throughout the Territory at large. Mr. Baca's statement shows an increase of a little over 50 per cent., while it was generally from 75 to 80 per cent. He adds: "We all sold our yearling wethers at \$2 a head. The condition of our sheep is fine; we have good grass and plenty of water."

Name.	Sheep.	Wool.	Price.	Lambs.
		<i>Pounds.</i>	<i>Cents.</i>	
Juan Rodriguez.....	5,000	18,000	18	2,000
Rumualdo Gonzales.....	3,000	.....	.....	1,500
Rumualdo Baca.....	2,000	.....	.....	900
Baca Brothers.....	12,000	43,000	19½	5,000
Lujan & Pinard.....	23,000	75,000	18½	12,000
Sisto Apodaca.....	1,800	5,000	18	1,000
Valentin Martinez.....	800	2,000	19	600
John Tixin.....	2,500	8,000	18¼	1,500
Pablo Padilla.....	700	1,800	17	.....
Luis F. Garcia.....	11,000	50,000	.....	5,000
Abelino Garcia.....	2,700	10,000	.....	1,500
Telesforo Casados.....	2,500	9,000	.....	.....
José M. Garcia.....	2,000	7,500	.....	1,200
Francisco Garcia.....	2,000	8,000	.....	.....
Manuel Garcia.....	1,300	5,000	19	.....
Francisco Miera.....	1,200	3,500	18	700
Guadalupe Lovato.....	3,000	9,000	18	1,500
Juan Vigil.....	5,000	17,000	20	.....
Francisco Vigil.....	1,400	3,000	18	.....
Fabian Chaves.....	700	2,100	18	400
Luisano Solano.....	1,000	4,000	19	.....
Bidal Salazar.....	1,200	4,000	18½	.....
Albino Roival.....	1,900	7,000	19	1,000
Santillanez & Son.....	1,500	3,000	17	700
Celso Lopez.....	700	2,100	19	500
José M. Gonzalez.....	3,000	8,855	19½	1,350
Nicanor Romero.....	500	1,500	18½	300
Romero & Garcia.....	2,500	9,000	19	2,000
"H." Ranch.....	6,000	.....	.....	.....
	101,900	316,355	.....	40,650

MINES AND MINING.

The mining industry throughout the whole Territory has increased in amount and profit during the past year. In every section there is an enlarged development. The beneficial effects of the tariff on lead are seen in all of the camps where an argentiferous galena is the staple ore. Relieved of a degrading competition with the ill-paid labor of Mexico, and protected in the receipt of a fair compensation for their arduous and perilous work, our miners are flourishing, and at the same time every such mine is running to its full capacity. The greatness of the present output is illustrated by the fact that the existing smelters are not able to receive all the ore that is produced. This will probably result in the establishment of a large smelting plant at Cerrillos, which has more natural advantages for that purpose than any other point in the Southwest, and probably than any in the country.

From the borders of Colorado to the Mexican line general prosperity prevails in mining matters. The total mineral product for 1890 was almost exactly \$3,000,000.

In answer to inquiries, several of the best-known mining men in the Territory have sent statements which include many matters of much interest, and which I insert here, that the information may be received from first hands. As most of these letters are from the south of New Mexico, I will simply supplement them by saying that mining operations in the north are equally satisfactory. In Taos there is increased activity, and new discoveries are reported near Picuris. In Mora the Bowmer copper mines at Coyote are being energetically worked. A 75-ton concentrator has been erected and is running to its full capacity, the concentrates being shipped east. In Santa Fé County the owners of the "Cash Entry" property have erected very extensive works, which are in full operation; the "Big Copper mine," at San Pedro, is being worked constantly; the "Lincoln Lucky" has resumed business;

a new smelter for gold and copper is about to be erected near the Tuerto Mountain, and renewed activity is reported at Dolores. New discoveries have been made in the Sandia Mountains. The great activity in Socorro County is alluded to in the statements which are to follow. Lake Valley has produced about \$130,000 during the year. Chloride has a new mill, but still needs a railroad. Mr. Walter C. Hadley, who furnishes the official reports to the Director of the Mint, estimates the output of 1891 at fully \$3,000,000.

Prof. Charles Longuemare, long an authority on mining matters in New Mexico, and now the editor of the "Bullion" at El Paso, writes as follows:

El Paso, August 16, 1891.—At this time in 1890 the situation in New Mexico and elsewhere in the Southwest certainly promised well for the future. The silver agitation throughout the country resulted in an advanced silver market; this had the effect of stimulating the production of silver mineral, and also caused increased attention to be devoted to the mining of lead ore, the latter being employed by smelting plants in the treatment of silver mineral. This favorable condition of the silver market, however, as well as that of lead, did not continue; and as was foreseen by conservative students of such subjects, the price of both metals declined to an extent which can be judged by the following table of New York quotations:

Date.	Silver.	Lead.
Saturday, August 23, 1890.....	1. 19	4. 60
Saturday, August 8, 1891.....	. 99 $\frac{1}{2}$	4. 55

The quotations of lead during the greater portion of 1891 were less than those of August 8.

Another and formidable obstacle in the way of the development of the mineral resources of the Territory, and an evil of long standing, is the alien act, a law that prohibits the investment of foreign capital in the Territories, while it permits it in the States. The influence of this enactment has been in the past and continues to be an invitation for the investment of capital in the State of Colorado, and failing there, the foreign mining engineers and investors pass through New Mexico with indifference to reach the Republic of Mexico, where every inducement is offered to the foreigner to embark in profitable mining and metallurgical enterprises. Notwithstanding the foregoing unfavorable conditions, unfortunate for the mineral development of New Mexico, I can report a good and healthy progress in the mining industry in the Territory during the past twelve months. Renewed interest has manifested itself in the northern portion of the Territory, where mining has languished for more than a decade; old camps in other sections that had been deserted for years have been revisited by prospectors.

Mining in New Mexico is in its elementary stages. This is so much the case that I am responsible for the statement that there is not a single mining district in the Territory which does not still offer inducements to the prospector and claim locator. Another important feature characterized the period embraced in this review. It is the interest which has been displayed in the so-called secondary mineral products. This evolution in the mining history of New Mexico has led to the discovery and systematic exploitation of the following minerals in various portions of the Territory: Iron, coal, fire clay, alumina, serpentine, marble, kaolin, salt, sulphate of lime, and silicate of magnesia.

Increased facilities have also been added to our metallurgical institutions. This is notably the case at Silver City, Socorro, and at El Paso, Tex. I include the latter point, as only a geographical and imaginary line divides it from New Mexico, and in every other respect its interests are identical and in common with those of the Territory.

A distinguishing feature of the mining camps of the Territory is the orderly and respectable element that constitutes their population, the general good health that prevails, the security of life and property, the rapid increase of educational facilities and advantages, and the general progress and development of those moral and physical influences that conduce to the happiness and permanent prosperity of communities.

In closing I will state that the annulment of that portion of the alien act that forbids the investment of foreign capital in mining property in the Territories and favorable silver legislation will at once culminate in an extraordinary development

of the mining industry throughout New Mexico, which would be increased by the adoption of a system of commercial reciprocity with the Republic of Mexico, inasmuch as that would lead to the establishment in the Territory of numerous manufactories, that would employ the metals abounding in New Mexico in the manufacture of many articles having the metals as a base that would find a ready sale in the markets of our sister Republic. In conclusion, I will remark that increased attention is now being given to the development of both zinc and copper ores, and that it is more than probable that ere the close of the present year a zinc plant will be in course of erection in the Territory, and also an important addition to its copper-smelting facilities.

Mr. Charles Metcalfe, of Doña Ana County, contributes the following information:

Las Cruces, August 14, 1891.—In common with the other portions of southern New Mexico, the Organ Mountain district has enjoyed a season of prosperity. At least one good paying mine has been added to its list of producers during the year. Notably has there been a cheapening of the methods of handling, and a greater demand for the lead fluxing ores in which the camp abounds, thus affording better treatment charges and permitting the handling of lower grades of ore. There is now a lively competition for the products of the camp, and the ores which formerly went to Colorado are mostly treated by smelting works in the Territory. This is directly due to a protection tariff.

In the eastern portion of Doña Ana County is a group of mountains called the Jarillas. For many years it has been known that they contained fine surface showings of copper ore carrying silver and gold, but as the nearest water was at the eastern base of the Organ Mountains, 30 miles distant, it has been next to impossible to develop the mines. Recently, however, an enterprising cattleman has succeeded in finding water quite close to the Jarillas, by boring, and this will probably lend an impetus to the early development of another mining district.

Some prospecting was done in the last year near Three Rivers, in the White Mountains in the northeastern portion of this county, and some very high grade silver ore was mined and milled. I saw an assay certificate for \$10,060 per ton. But it has since developed that the mineral district is in the edge of the Mescalero Indian Reservation and the authorities have prevented further exploitation. The section of the reservation upon which the mines are situated is valueless for anything excepting mineral, and the Indians would not be losers if this portion was cut from their reservation and restored to the public domain.

The year 1890-'91 has witnessed the opening up of a new field in mining for southern New Mexico, that of handling the refractory or zincy ores which heretofore were considered valueless and detrimental to mines. They are now shipped to points in Iowa and Missouri for treatment, and bring profitable returns. Especially does this benefit Grant and Sierra counties.

The developments at White Oaks, which I have watched with interest, having had an acquaintance with that camp since its first discovery, are entirely satisfactory, as it has been found that the ores do not deteriorate in value with depth. The shaft of the North Homestake mine, the original discovery location of the district, is now 1,000 feet deep, and the grade of its ore has not materially changed. Another point in favor of this camp is that its mines are entirely dry, no pumping being necessary, and therefore affording cheap mining.

The recent finding of the vein of the American mine in Dry Gulch, Lincoln County, is highly important to that district. This mine has been worked in a desultory way since its discovery in 1868, and a few years ago a mill was erected which operated upon the surface ores. As these were worked out the mill has been idle for some time, but a short time ago, while extending a prospect tunnel, the main vein, rich in gold, was discovered, and the mine is now being extensively developed.

Prof. J. C. Carrera, who is now making the collection of New Mexican ores for exhibition at the Columbian Exposition, writes as follows:

In the past year a decided progress has been evident in all mining regions. The coal fields of Cerrillos and Gallup have yielded a tonnage vastly superior to that of any previous year. San Pedro has kept its great record for both copper and gold, and as usual Grant County is in the lead in the production of gold, silver, copper, zinc, and iron.

The Santa Fé Railroad freight facilities being inadequate to the very active production of the ores, another branch railroad is being built from Whitewater to Hanover. Upon the completion of this branch the output of Grant County will unquestionably be more than twice as large as at present. Much attention is now being paid to the alum beds or deposits along the Gila River, and as soon as the proposed road is built New Mexico can supply the American market with these minerals, to the detriment of English importations. The production of lead carbonates has never

been so great as at present, the smelter at Socorro being compelled to limit its purchases, and many of the mines can not find adequate facilities for the transportation of these ores. The "Bennett-Stephenson" and the "Modoc" being in this condition, the large bodies of ore in sight are compelled to remain there. The "Graphic," at Kelly, is excelling the record for production of carbonate ore in the mining history of the Territory.

White Oaks comes to the front again with a large production of gold, one of the mines alone, the "Old Abe," having produced about 2,200 tons in 8 months, giving a gross value of \$112,124.93, with a net profit of \$82,366.91. Large and continuous ore bodies are in sight in the different mines, especially the "Homestakes" and "Lady Godiva," thus assuring to the camp a future of prosperity. White Oaks also possesses abundant deposits of lignite suitable both for steam and coke, thus making the great deposits of iron in the immediate vicinity of unquestionable value, but the want of railroad facilities keeps these riches dormant. This part of the country will surely be the Pittsburg of the west, the supply of coal and iron being inexhaustible.

Doña Ana county possesses the largest deposit of its kind in the known world. A bed of gypsum, following the eastern slope of the San Andres Mountains, extends north and south for nearly 50 miles and at several points measures 20 miles in width. These deposits show more gypsum than all others known to exist, combined. Considering the large application of this material in the arts for glazing, for plaster of Paris, and as an ingredient in the manufacture of artificial marbles, together with the vast amounts consumed yearly in agriculture, entitles this to the most eminent place among the undeveloped mineral resources of the Territory. This gypsum is already mined and ground by kind nature and only needs adequate transportation to make it a source of much activity and prosperity. To add to this extraordinary deposit, a lake of carbonate of soda runs for miles along its western border and here and there makes room for epsomite and chloride of sodium, and it is altogether likely that other similar minerals will be found, but this, like many of the mineral wonders of the Territory, remains idle and unprofitable for lack of the "civilizing locomotive."

Much attention is being paid to the precious stones found in the different localities of the Territory. Turquoise exists in the Burro Mountains south of Silver City, thus increasing the supply of this beautiful stone, that before was obtained only at Cerillos and Hachita.

Eastern lapidaries begin to appreciate very highly the topazes and staurolites of Santa Fé County, and the most beautiful garnets, rubies, carbuncles, amethysts, and allied stones found both in the San Juan Valley and in the mountains back of Gallup. There are said to exist up in the craggy peaks of the eastern slopes of the Organ Mountains large bands of lapis lazuli, a very valuable stone, made so both by its extreme rarity and matchless beauty.

Another new industry is springing up in the Territory which promises to be a source of large revenue. It is connected with the building stone and marbles found in a great many of the mountains reticulating the Territory. The Ricolote (serpentine) on the Gila River is becoming a very fashionable marble for inside decorations in the large cities of the East. In the immediate vicinity of White Oaks are large beds of dolomitic limestone, very much like the white marble of Vermont. In connection with this exists also large beds of a similar nature but of a beautiful black color very similar to the Panno di morte of the Italian quarries; and between these two varieties is found a third, variegated with several colors not unlike some of the Tennessee and Michigan marbles. Several other localities also afford these stones. At Socorro the old Graphic smelter is being converted into fireclay works. Six miles away in an easterly direction exists a deposit of fireclay as white and refractory as the clays of St. Louis and Swansea.

It is only a question of a short time and means of transportation when these new found mineral resources will be developed, and there are already certain evidences sufficient to rank New Mexico among the foremost mineral belts of this country.

As to the mining condition in Grant County, Mr. A. J. Hughes sends the following comprehensive report:

The mining districts of Grant County are doing exceptionally well, and many of them which have lain idle for several years are again in the field as producers. Thanks to the beneficial effects of the "McKinley bill," which placed a tax on Mexican lead ores, the lead-silver properties of Grant County, of which there are many, are now being worked to their full capacity. Pinos Altos, Cook's Peak, Central, Carpenter, Victoria, Tres Hermanos, Lone Mountain, Shakespeare, Hachita, and other districts in the county are sending forward their quotas to swell the bullion product of the Territory. All of these camps mentioned produce lead-silver ores in quantity, and their working is now made possible by placing an import duty on Mexican ores. As a result of this activity the smelters have been receiving more ore than they could handle. Silicate ores, which have heretofore been refused, are now in demand;

and as the quantity of such ore is simply unlimited, the outlook for this section of the Territory may be said to be unusually favorable.

The iron interests are in a flourishing condition, and the completion of the Silver City and Northern Railroad to the Hanover mines has more than doubled the output for the past month. Five or six carloads daily, the present output, will be quadrupled within the next sixty days, when all the properties will be working under full headway. The shipments of iron ore from Silver City amount to several carloads per day, and since January 1, 1891, 13,846,951 pounds have been shipped from this city. This, in conjunction with shipments from Hanover, places the iron output of Grant County at nine carloads daily.

Development work on the Ricolite quarries has been going on steadily; a carload, the first shipment this year, was made on August 20; about 3,000 cubic feet are now at the mine ready for shipment.

A new camp has been opened up 3 miles from Carlisle which has a brilliant future. The camp is but little more than a year old, yet in that brief period it has been satisfactorily demonstrated that ore in sufficient quantities and rich enough to bear transportation charges, netting the owner ample pay for all development work, is abundant. In several instances exceedingly rich pockets of gold have been encountered.

Aside from these, immense deposits of zinc-lead ores are being opened up in Carpenter district, on the extreme eastern boundary of the county, and some claims are now being worked under bond by eastern syndicates. The zinc mines of Hanover Gulch are being operated quite extensively by eastern parties. The completion of the Silver City and Northern Railroad from Whitewater Station, on the Silver City branch of the Atchison, Topeka and Santa Fé Railroad, will give a new impetus to iron and zinc production, and also afford convenient shipping for the product of the "Anson S." copper mine and smelter, located near the head of the gulch.

Cooks Peak, now the leading lead-silver camp of the county, is coming to the front with rapid strides, and the Summit or "Teal & Poe" mine ships a carload of ore daily.

The Graphic (zinc-lead) mine, at the extreme southern end of the Cooks Peak range, is producing regularly and shipping several carloads of ore weekly.

The stamp mills of Pinos Altos are running regularly on full time, and the output is decidedly satisfactory. The mines at Victoria are being worked on a small scale and the results are satisfactory. Tres Hermanos, southwest of Deming, is working in a small way. In Shakespeare little is being done at present in consequence of litigation. Pyramid has been working uninterruptedly for the past ten months. When taken hold of by the present company the mine was filled with water, caved in, and in a bad shape generally. The water has been pumped out, the mine cleaned out, retimbered, etc. The result has been that the property is now upon a paying basis. A 20-stamp mill, completely remodeled, is now doing good work. Georgetown, the boss producer of the county, is moving along quietly but regularly. Alhambra continues to move along slowly, but when a shipment is made it counts. Several companies are operating and a goodly number of leasers are at work. Lone Mountain is being worked somewhat, and the Bremen mill in this city is being repaired preparatory to starting up on Lone Mountain ores, contracts for 1,200 tons being already made.

Appended are Wells, Fargo & Co.'s official figures for bullion shipments from January 1, 1891, to date :

	Gold.	Silver.
January	\$18, 925	\$3, 100
February	10, 385	150
March	20, 075	100
April	17, 825	1, 516
May	17, 105	2, 975
June	13, 770	1, 675
July	14, 465	360
August	18, 505	.....
Total	131, 055	9, 876
Aggregate .....	.....	140, 931

Add to this 33 per cent for undervaluation, and you have the approximate production as shipped by express, \$197,908. Besides this, bullion and gold dust have been disposed of to the banks and private individuals, which will swell the amount to fully \$3,000 more, say to \$200,908. The Dimmick Brothers made a shipment of ore to the smelter two months ago which would not be received, as it was so rich that the smelter men could not approximate its value. It was reshipped to Kansas City

and sold as bullion. The shipment was not large, only a few tons, and the exact figures are not obtainable, but they reached the neighborhood of \$15,000. This amount properly belongs to the silver-bullion returns, although it has not been included. One piece of the ore weighing 57 pounds sold for \$514.98, a trifle more than \$9 per pound.

Returns from other shipments from different parts of the country, notably from Alhambra, the new camp near Carlisle, the Alpha and Omega at Pinos Altos, the Cooks Peak and Hadley mines, Victoria and Hachita as well as Shakespeare, Pyramid, Lone Mountain, Central, Hanover, Volcano, Steins Pass, Georgetown, Copper Flat, and one or two other localities, would greatly swell the above figures.

The Aztec and Pacific mills, north of Silver City, are kept running on ores from the mines owned by the companies respectively. Both mills are complete in all details, and fulfill admirably the purposes for which they were erected.

The Flagler Reduction Works, along the line of the railroad, one mile south of Silver City, have been put in complete repair and are now operating successfully.

The Serpentine rock, with the newly coined name of Ricolite, is found on the Gila River near Carlisle, and is a beautiful ornamental stone for architectural purposes. It is banded with alternate strata of gray and green colors from one-half to one inch in thickness. It has rapidly gained the front rank in the east, and the demand is greater than the supply, for the reason that transportation facilities are meager. It is susceptible of a fine finish, and is quite durable. This is probably the only deposit of it in the world, as no mention is made of such rock in any work on geology or lithology. The marble of Bear Creek, 10 miles from Silver City, will without a doubt attract a great deal of attention in the near future. It is jet black, and the variegated marbles of the same series are as fine as can be found anywhere, very even in texture, and susceptible of a very high polish. Within the next year these quarries will be shipping large quantities east and west, as there is great demand for this kind of marble. As to the white sculpture marble of the Hanover district, said to be equal to Italian marble for sculptural use, the quarry has not been opened sufficiently to show its full merit, but from surface indications the deposit is extensive.

Col. A. W. Harris, the successful manager of the Illinois Silver Mining Company and two other mining corporations, at Kingston, writes as follows regarding the mining interests of Sierra County:

The geology of this district, which is included in the Sierra Mimbres or Black Range, from which it derives its name, is as follows: It is composed of foothills or numerous spurs, which flank the eastern slope of the Sierra Mimbres. These are separated from each other by gulches, which carry the drainage of the mountain range eastward toward the Rio Grande. The main range is composed of granitic eruptive rock, such as porphyry, syenite, and the like. The formation of this eastern slope is composed of quartzite, magnesian limestone, shale, fossiliferous limestone, and sandstones. We have primary and secondary limestones, which scientists inform us were formed at different periods, and shales composed of indurated mud indicating the nearness of a shore line or river mouth at the time of the deposition. The shales lie upon the primary lime or between the two, and form what are known as "contact fissures," along the line of and between which "minneral" is found deposited. Oftentimes, where the shale has been eroded, the foot-line will show irregular deposits of ore of varying extent and richness, owing their natural mineral supply to the original contact vein. Numerous porphyry dikes are observable through the belt, and with a few exceptions run parallel with the strike of the veins. The mineral belt, of which this district forms the southern portion, can be traced from the point where the foothills join the Rio Grande Valley, where are located the famous mines formerly known as the "Sierra Grande" and "Sierra Plata." These mines have produced millions, and are still affording regular dividends to their fortunate stockholders. From this point the trend of the belt is in a northeasterly direction, and can be traced for over 60 miles. At intervals the outcroppings of the ledges are located and being worked with success. First on leaving Lake Valley occur the Tierra Blanca mines; next the Trojilla outcroppings, where they have found silver and lead in paying quantities; next the Monaska group, from which many thousands have been taken. Then the South Perche mines, owned and operated by a St. Louis Company. These mines contain copper and lead, with silver in the form of sulphides and remarkably rich pipes of boanite. They show large masses of low-grade ore, and only need good concentrating machinery to make their output profitable. Then comes the famous Kingston district, with its numerous paying properties, comprising the Superior, Lady Franklin, Black Colt, Comstock, Bullion, Savage, Brush Heap, Andy Johnson, Illinois, Iron King, Enterprise, and others. Then a few miles northerly are the Mineral Creek properties, with the rich Cumber-

land as one of the most promising producers of very high-grade ore. Next, the North Perche mines, among the most important of which are the Keystone, Virginian, and Templar, and so on through Cave Creek, Hermosa, and Chloride. This mineral belt is from 2 to 9 miles in width, and on its extreme eastern side at Hillsboro shows gold placer deposits and ledges of quartz carrying gold, silver, and copper, from which undoubtedly the placer deposits were eroded. As you proceed along the width the character of the mineral deposit changes to silver sulphides and chlorides of high grade; then as you proceed westward the deposits carry manganese, iron, and lead, and there is a falling off in the grade of silver. Near the western edge the mineral deposits are mostly zinc and lead, carrying, but a small percentage of silver. The attention of the mining investor is now being attracted to the latter large deposits, and very lately the valuable lead and zinc property belonging to Calbrick & Co. has been purchased and will be worked for the latter metals.

A new concentrating plant has been erected at Kingston by Messrs. Chandler or Daily, and it has been satisfactorily demonstrated that the low-grade ores of this camp can be worked at an immense profit.

A new company has purchased the Iron King mine and smelter, with a view of working dry ores by the matte process. Thus our camp is undergoing a revival of mining interest, which it richly deserves, and which will produce results that will go far to work out the destiny of New Mexico.

I can not forbear adding a few reflections and criticisms that bear upon the general subject of the existing conditions in southern New Mexico. From my own experience, covering a period of over eight years last past, and from my personal observation in a professional capacity, I am convinced of the following fact: That New Mexico furnishes to-day greater encouragement for the outlay of mining capital than any of her sister States or Territories. This is shown by the constantly recurring indications of mineral wealth covering almost the entire area of her mountain elevations and along the contiguous streams. Nowhere can be found such rich float and outcropping ledges. Volcanic upheavals with their accompanying formations of porphyry and other eruptive rock greet us on every side. Argentiferous shale and lime contacts are abundant, along the open fissures of which are sure to be deposited precious metals from the mineral solutions that can only find a passageway from below through these contact fissures and cracks in the original crust.

When to these inducements are added the climatic advantages which facilitate the working of our properties, with no excess of water, no snow, the ease of access, and the ample supply of fuel and fluxing material for our furnaces, we feel fully justified in claiming better encouragement for an outlay of capital than our more northerly neighbors offer.

FORESTS AND LUMBER.

This subject is becoming more and more important as years pass. Forests of great extent and value are scattered in widely separated portions of the Territory, so that no locality is very distant from some point of lumber supply. Those that are being used to the greatest extent are the same as previously reported.

The extension of the Union Pacific Railroad into the Red River country on the Maxwell grant in Colfax County brought into market about 200,000,000 feet of pine and spruce timber. There are now seven mills in operation, cutting about 3,000,000 feet per month. An extension of the railroad is expected in the near future, which will bring into market other equally large and valuable tracts. Aside from the saw timber, there are about 20,000,000 of ties and a vast amount of timber suitable for mining purposes tributary to the railroad already built.

On the Petaca grant about 5,000,000 feet of lumber were sawn during 1890. In 1891 probably 7,000,000 feet will be sawn. There are two mills, one in Tres Piedras and one 7 miles west. The latter is a new institution, and has been sawing since May 15 last. On the Tierra Amarilla grant, in the vicinity of Chama and Amargo, the work of timber cutting continues uninterruptedly. A number of sawmills are constantly employed. The pine timber in this section of the Territory covered by the Petaca, Vallecito, and Tierra Amarilla grants is

unusually fine. The amount cut from the latter during eleven months of the last year is as follows:

Month.	Lumber.	Month.	Lumber.
1890.	<i>Feet.</i>	1891.	<i>Feet.</i>
July	2,548,843	January	1,899,943
August	2,425,879	February	804,402
September	2,288,752	March	1,096,511
October	1,226,011	April	1,109,858
November	1,394,023	May .....	.....
December	1,539,329	June	1,950,219

This gives a total for the entire year of almost exactly 20,000,000 feet cut from the Tierra Amarilla grant. The whole product of that section of the Territory exclusive of the Petaca grant has been 33,000,000 feet during the year.

A large body of very valuable timber land in Valencia and Bernalillo counties, which constituted part of the Atlantic and Pacific Railroad land grant, has been purchased by Messrs. ———, who intend to build railroads and other appliances for bringing it into market. The region northwest of Las Vegas, in San Miguel and Mora counties, continues to supply a large amount of lumber, several sawmills being constantly employed.

RAILROADS.

While the total mileage of new roads constructed during the past year is not great, still it shows a revival of railroad building, and each construction has been made to meet an existing business necessity and is of immediate benefit to the Territory by opening a new section and affording a market for its products.

The railroad on the Maxwell grant, designed to afford an outlet for the enormous amounts of lumber in Colfax County, is finished, and its usefulness is seen in the large product of lumber in that section elsewhere reported. This road extends from Trinidad to Catskill, a distance of 27 miles, and thence up and down Red River 12 miles, to accommodate the mills in their timber shipments. Of its total length of 39 miles, 27 miles are in New Mexico and 12 miles are in Colorado.

The Pecos Valley Railroad is finished from Pecos City, in Texas, to Eddy, and will soon be continued through Eddy and Chaves counties to Roswell. Its present length is 95 miles, of which about 35 are in New Mexico.

The road which for some time has been in process of construction southerly from Deming has made no active progress within the year. The original plan has been greatly enlarged, and this has required an increase of capital which has not yet been obtained. This railroad is named the Mexican Northern Pacific Railway, and one of its officers makes the following statement:

Having its initial point at Deming, Grant County, the Mexican Northern Pacific Railway, now in course of construction under a subsidy concession from the Mexican Government, will open up to the commerce of our Territory one of the richest sections of country known. The projected route extends from Deming almost directly south for 600 miles, past the famous mines of Sabinal, Corralitos, Casas Grandes, Galeana, El Valle, Cruces, Namiquipa, Santa Tomas, and Guerrero to Bacoyna. From Bacoyna the main line takes a southwesterly direction for 400 miles to the Pacific coast at Topolobampo, where it will have a harbor second to none from San Francisco to Panama. After crossing the Sierra Madre Mountains at Bacoyna Pass the road enters in close proximity to the iron mountains of Durango, and the won-

derful silver producing districts of North Sinaloa, a recently discovered field of anthracite coal, of fine quality and large extent, making tributary to our Territory, so to speak, a region which for the richness and wealth-giving variety of its mineral resources is scarcely equaled on earth. A great part of our timber supply may be furnished by this road from the extensive forests of pine, oak, sycamore, ash, and walnut lining its course for a distance of 130 miles from Galeana to Guerrero. From Guerrero, 300 miles south of Deming, the Mexican Northern Pacific will build a spur of railway 150 miles in length to Chihuahua, the capital of the State of that name, giving it connection with the great Mexican Central system at that point. Another spur, or rather an extension of the main line, will parallel the coast from Topolobampo to Guaymas, 350 miles, making in all a line of railway 1,500 miles in length. The new road will be of standard gauge, 60-pound steel rails, and equipped, under the terms of the concession, in a strictly first-class manner throughout. Construction is being pushed with vigor at the city of Chihuahua, and south of Deming. Seventy miles of grade is now ready for the ties, and assurances are given that trains will be running to Corralitos, 125 miles south of Deming, by the close of the present year.

A railroad, which, though not of great length is yet of considerable business importance, has been built to connect the Atchison, Topeka and Santa Fé Railroad with the extensive mines at Hanover and its vicinity. It is called the Silver City and Northern Railroad, and Mr. T. G. Condon, its vice-president and general manager, gives the following information regarding it:

The railroad starts from Whitewater, a station on the Atchison, Topeka and Santa Fé Railroad, 16 miles south of Silver City, and runs almost directly north, passing 1½ miles east of Central, on up into what is known as Hanover Gulch, a distance of 19 miles. The road is now nearing completion, and it is our expectation to open for service about the 1st of September. We reach the large iron deposits that for some years past have helped to supply the smelters at Socorro and El Paso, the zinc properties owned by the Mineral Point Zinc Company, the Anson S. copper properties, and other properties situated in Hanover Gulch. Although our charter gives us the right to built to Georgetown we will not at present go so far, and our terminus will be about 3½ miles to the west of that place. The road, a standard gauge, has been built by Eastern parties, and has a capital of \$100,000. The parent company is the Southwestern Coal and Iron Company, with a capital of \$1,000,000 and a bonded indebtedness of \$200,000.

Probably the next road to be constructed will be the Silver City, Pinos Altos and Mogollon Railroad, designed to connect some of the richest mineral sections of Grant and Socorro counties with the existing railway system at Silver City. The line has been established and work is expected to begin at an early day.

Other lines that are projected, and each of which is much needed, are:

(1) A continuation of the narrow-gauge system from Colorado by the construction of a line from Santa Fé to the town and coal fields of Cerrillos and thence to Albuquerque.

(2) A line from Trinidad or its vicinity to El Paso, passing through the rich valleys of Mora and San Miguel counties, accommodating the town of Taos and proceeding through Las Vegas to White Oaks, where the coal fields are very important, and thence to El Paso.

(3) A line up the Animas River from Durango in Colorado to Aztec and Farmington, in San Juan County, to serve as an outlet for the large products of that section, and in time from the San Juan, via Jemez Hot Springs, to the Atchison, Topeka and Santa Fé Railroad at some point in the Rio Grande near Albuquerque, Bernalillo, or Algodones.

A revival of railroad building in the country will be followed by the construction of several lines in New Mexico which will do very much to develop the Territory.

The total railroad mileage in New Mexico at present is as follows:

Atchison, Topeka, and Santa Fé:	
Main line, north and south (1879-'81).....	503.1
Lamy to Santa Fé (1880).....	18.
Rincon to Deming (1881).....	53.
Dillon to Blossburg (1881).....	5.9
Nutt to Lake Valley (1884).....	13.3
Socorro to Magdalena (1884).....	27.1
Magdalena to Kelley (1885).....	3.9
San Antonio to Carthage (1882).....	9.6
Las Vegas to Hot Springs (1882).....	6.4
Hot Springs westward (1887).....	1.9
Silver City Branch.....	48.
	690.20
Atlantic and Pacific:	
Main line (1881).....	166.60
Sidings (188-).....	22.25
San José Quarry spur (1888).....	3.41
	192.26
Southern Pacific:	
Rio Grande to Deming (1881).....	73.46
Deming to Arizona line (1880).....	93.76
	167.22
Denver and Rio Grande:	
Colorado line to Española (1880).....	85.86
Between Antonito and Durango (1880).....	69.03
Tres Piedras lumber branch (1888).....	2.15
Chama lumber branch (1888).....	3.16
	160.47
Denver, Texas and Fort Worth, in New Mexico.....	83.30
Santa Fé Southern, Española to Santa Fé.....	39.00
Arizona and New Mexico, Lordsburg to Arizona line, about.....	32.00
Pecos Valley Railroad, in New Mexico.....	35.00
Trinidad to Catskill, in New Mexico.....	27.00
Silver City and Northern, in New Mexico.....	19.00
Total.....	1,445.45

INDIANS.

My report of last year was so full on this subject that I confine this statement to matters that were not then touched upon or have arisen since that date.

PUEBLOS.

These people have passed such uniform lives, at least during three centuries of which we have records, that little new is to be said of them. I may repeat that they pursue their peaceful avocations, industriously labor in the fields with the rewards of abundant harvests, and celebrate their festivals with the ceremonial dances and open-handed hospitality as in the years that have gone before. Their lives are passed in peace and prosperity, and so supervised by their paternal local governments as to be models of regularity and morality. Mr. Segura, their late agent, reports as follows:

Their present condition is every way satisfactory. They will raise good crops. Over 300 acres of new ground were broken this year and planted in wheat. The Indians are turning their attention to raising alfalfa for forage. At Cochiti they have built a wire fence nearly 6 miles in length. I believe that there has been an increased attendance in the schools. Three Government day schools have been opened at McCarty, Cochiti, and Santa Clara. The latter two have been attended mostly by girls, the regular attendance at Cochiti being about 20 and at Santa Clara about 23. This is the first time, as far as I know, that the Pueblo Indians have sent their girls to school with regularity. A new day school will soon be opened at Zia.

I am under the impression that the Pueblos are decreasing in numbers; diphtheria and smallpox carried away about 60 children at Ácoma last winter. The Taos Indians lost about the same number from the same causes.

NAVAJOES.

Nothing has occurred in this important tribe calling for special mention. The census officials have occupied much time in the endeavor to obtain a perfect enumeration, and the result of their labors will appear in their own report. The total population is understood to be 16,102. Renewed complaints are made that a large fraction of this tribe habitually live outside of their reservation, and there seems to be no doubt that the facts justify the complaint.

APACHES.

The Jicarilla Apaches have been connected with the Southern Ute Agency for some years, and as this arrangement had unsatisfactory results those specially interested in their welfare were anxious that that connection should cease and that they should be united with the Pueblo Agency. This change was made on July 1, but it is now apparent that the only satisfactory arrangement possible is to give them a separate agency. The Pueblo Agency can not be removed from Santa Fé, but the pecuniary responsibility of the agent is almost entirely in connection with the Apache Agency at Dulce. The Jicarillas number 721 and are therefore better entitled by their numbers to an agent of their own than the Mescaleros, who number but 462. Concurring in what seems now to be a universal opinion among all conversant with the subject, I recommend that the Jicarilla Apache Agency be made independent, with an agent of its own.

Regarding the Mescalero Apaches, Col. Hinman Rhodes, the agent, says:

There are upon this reservation—

Males above 18 years of age.....	120
Females above 14.....	201
Children of school age.....	110
Children under 6 years of age.....	100
Total	531

Of these 10 are Comanches, 40 are Lapans, and the remainder are Apaches.

The Indians have about 400 acres in corn, oats, and wheat, and many of them have vegetable gardens. They are building log cabins and have eighteen in course of construction. They furnish grain for the agency stock, for which the Government pays them the market price and their surplus is sold to citizens in the surrounding towns. The Government furnishes about 75 per cent of their subsistence.

The Indians own stock as follows: Horses, 560; mules, 10; burros, 90; cattle, 287.

The school was adjourned for vacation on the 30th of June; the attendance was 46.

The crops for this year are above the average. There is no discontent among these Indians, nor is there any cause for discontent. There have been no arrests made since I have been in charge. Quite a number of the Indians wish their lands allotted in severalty.

The Indians have heard of the World's Fair at Chicago and say they wish to have a party attend, and also to make an exhibit of articles manufactured by themselves.

INDIAN SCHOOLS.

The two Government schools are "Fisk Institute," at Albuquerque, and "Dawes Institute" at Santa Fé.

Superintendent Creager, of the former, says:

The general average of pupils attending this school for the fiscal year ending June 30, 1891, was 187. Four tribes are represented in the school, viz: Pueblo Papago, Pima, and Navajo. Of these the Pimas and Papagoes seem to be the most eager to obtain an education. The children of these tribes seem to apply themselves to the school work, both literary and industrial, more closely and successfully than do

children from the other tribes. However, all of the children have made rapid advancement, and many of them have shown marked ability. The Navajoes have very keen perception, and show themselves to be very susceptible of education, but their clannish customs are so dear to them that they can not entertain the idea of sending their children away from home to attend school. I believe that a compulsory law with regard to education, with the power to enforce it, is the only thing that will solve the Indian problem in New Mexico.

This school is more prosperous than ever before. We have just completed a new dormitory that will accommodate 150 girls, and we are now receiving bids for foundation and brickwork for a two-story school building that will accommodate 350 or 400 pupils. Among our male pupils we have some good carpenters, shoemakers, tailors, and harness makers. Among the girls we have some who are proficient in domestic work, such as laundry, sewing, and general housework.

Regarding "Dawes Institute" Supt. Cart reports:

The school was opened for the admission of pupils November 15, 1890. Ninety were enrolled up to June 30, 1891, half of whom were Pueblo children and half Apaches from the Jicarilla and San Carlos reservations. The attendance can be brought up to 250, possibly many more, with the proper facilities.

The main building is 38 by 157 feet, with two wings, each 24 by 119 feet, and contains dormitories, pupils' sitting rooms, dining room, school rooms, bath rooms, kitchen, sewing rooms and tailor shop. The barn and carpenter shop are temporary frame structures. A laundry and bakery are in process of construction. The erection of a building for employes' quarters, 24 by 78 feet, with one wing, will begin soon. All buildings are of brick, two stories high, except barn and carpenter shop. The farm comprises 106 acres of the best land, all under fence. After a supply of water for irrigation has been procured all this land will be cultivated, and will become a source of profit, both on account of the industrial training thus afforded for the Indian boys and the fruit and other crops. The one well only affords water enough for the buildings. It is quite probable that an artesian well will be sunk this fall, which will give a supply for irrigation. The engine which has been received is sufficient to pump the water, if necessary, besides running the steam laundry. Two hundred young fruit trees are growing, also a small number of forest and ornamental trees, and some shrubbery.

The girls receive regular instruction in sewing, cooking, laundering, etc., while the boys are taught carpentry, shoemaking, tailoring, and laundering. They learn to cook their own food and make their own clothing. Besides the industries named, the children also do all kinds of necessary work incident to the running of the school. Other industries will be added as the school increases in size.

The other Indian schools are those in charge of the Roman Catholics, the Ramona school at Santa Fé, and the Presbyterian Indian school at Albuquerque.

In reference to the Roman Catholic schools, Rev. Antonio Jouvenceau, their superintendent, reports that there are twelve in operation. These include St. Catherine's boarding school for boys, at Santa Fé, a boarding school for girls, at Bernalillo, and ten day schools, all conducted under contract with the Indian Bureau at Washington. The day schools are at the following pueblos: Taos, San Juan, Santa Clara, Cochiti, San Domingo, San Felipe, Jemez, Isleta, Laguna and Ácoma. St. Catherine's has an attendance of 90, and the Bernalillo school of 75. Mr. Jouvenceau adds:

That our Indians in New Mexico are capable of being educated is a fact well established; anybody visiting St. Catherine's, the Bernalillo schools, or even our day schools like San Juan can be easily convinced that Indian boys are naturally bright and intelligent. It will take several generations yet to raise the Indian race to the present standard of our modern civilization, but I am glad to say, and I offer it as a consolation to all those engaged in the Indian work, that our efforts are not vain and useless. The present system of home government, such as it is practiced amongst the Pueblo Indians, is a drawback to their advancement. To destroy it and change it immediately is a matter of impossibility. The education of the present generation will accomplish the work gradually and without bloodshed.

The Ramona School at Santa Fé is in a very flourishing condition. It is conducted by the University of New Mexico (a corporation) under

contract with the Government. Mr. Elmore Chase, the superintendent, says:

This school, which had for five years taught Jicarilla Apache children, turned its attention to the education of the Pueblo Indians about the beginning of February last. The condition of things seemed favorable for this work. First, the class of pupils which fill the United States schools was such that parents hesitated to place their daughters in those schools. Second, the work of the Government schools in the industrial part was directed more to the training of the boys, little comparatively being done for the girls in this direction outside of sewing and mending. These two facts led this school to change its policy and become a school for girls, especially for Pueblo girls, admitting boys only when their parents wished them not to be separated from their sisters at school. It has been only a few months since this change was made, and yet the applications now exceed the limits of the Government contract and the capacity of the school. So far as my observations lead me to speak, I am convinced that the Government needs to provide more carefully for the education of the girls. The heathen Indians have little regard for the education of their girls; the Christian Indians are not willing that their daughters should be companions and schoolmates with the Navajo and Apache young men.

Prof. Chase also makes the following practical suggestion:

I suggest that a lady superintendent of one or two Pueblos, when they are not a day's journey apart, should be appointed, whose duty should be to teach the women how to live, and to preserve the work of the school in the children when at home from the school. More is lost than one realizes till he has seen how hard it is for the children to bring a better way of living from the school to the parents. The parents do not know how to change, and the children obey the parent implicitly. One good, competent lady, living at least two days' a week in a pueblo, if the pueblo is not large, will save half of the work of the school to the children, and impart to the parent new ways of life, so that the education of the children be applied to the home.

The Albuquerque Indian School did good work through the last school year, having an average attendance of 42, mostly from Laguna, but it has now been closed. It was in charge of Rev. Robert Coltman, as superintendent.

PUBLIC BUILDINGS.

To the description of the capitol and penitentiary, given in former reports, there is nothing to be added. The governor's palace was spoken of at large last year. The appropriation of \$3,000, made at the first session of the Fifty-first Congress, was judiciously expended by the secretary, Hon. B. M. Thomas, and has done much to preserve this most interesting of historical structures. A small additional appropriation has recently been made and will soon be expended in further repairs. The central part of the building, for nearly three centuries the official residence and headquarters of the governors of New Mexico, is again occupied in its appropriate manner, one of the front rooms being the business office, and the large room, which from time immemorial has been the official reception room, and has undoubtedly witnessed more varied and interesting events than any other in America, being restored to that use, and fitted up with antique paintings, wood carvings, armor, etc., of Spanish or Mexican origin. The rooms east of the center, long occupied by private parties, have at length been recovered by the Government, and will soon be devoted to the purposes of the Bureau of Immigration, for a permanent exhibition of the products of New Mexico. The Historical Society appropriately occupies the east end, and the post-office is still at the west end.

The four Territorial institutions were described in my last report. Since then the university building at Albuquerque has been almost finished; the Insane Asylum was commenced in the early summer and is progressing satisfactorily, and the same may be said of the School of Mines, at Socorro. The Agricultural College building south of Las

Cruces was completed sometime ago, and is a beautiful and convenient structure. The late legislature authorized the raising of \$25,000, by an issue of bonds, to aid in the erection of the Insane Asylum, which is greatly needed; and also appropriated \$2,000 for the purchase of apparatus for the School of Mines.

During the year an excellent court-house has been built at Roswell for the new county of Chaves, and one will soon be erected in the town of Eddy for the county of the same name. Under the influence of the new school law, the next year will witness the erection of a large number of schoolhouses, several of which will be handsome structures of stone and brick.

SCHOOL LANDS.

There is no change to report regarding these lands. Being reserved from entry, they necessarily remain unoccupied and unused until the admission of New Mexico as a State, or until Congress takes special action in the case. We all feel that it is an injustice that these lands are not ceded to New Mexico without longer delay, for a school fund is greatly needed, and in fact is more necessary now, when the Territory is comparatively poor and is having to incur large expense for public buildings and institutions, than it will be in the future, when wealth shall have accumulated and these public works are finished. I earnestly recommend that an act be passed giving to the Territory immediate possession of the lands, and regulating their sale and the investment of the proceeds.

MILITARY POSTS.

During the year the troops stationed at Fort Union and at Fort Marcy (Santa Fé) have been withdrawn, and those posts have been left unoccupied. This is understood to be in pursuance of the policy of concentrating the troops in the West at a few large posts, for convenience of administration. While Fort Union was a large post with extensive structures, yet its situation at a considerable distance from a railroad has caused its abandonment to be expected for some time. The withdrawal of troops from Santa Fé is a very different matter, and is regarded here as a grave mistake which should be rectified as soon as possible. For very many years Santa Fé was the headquarters of a military district, usually consisting of New Mexico and Arizona, and every consideration both civil and military made that arrangement the proper one. Suitable buildings for the residences of the district commander and other officers, and also for the headquarters offices, were erected at large expense. A small post, called Fort Marcy, was maintained near the headquarters, the whole constituting what was known as the military quarter. When the district was merged into the Department of Arizona, the headquarters were ordered to be established at Santa Fé, but through influences other than military were changed to Los Angeles, one of the most distant and inconvenient points in the department for the transaction of its military business. The headquarters buildings at Santa Fé were made a part of the post of Fort Marcy, and that post was enlarged so as to include three companies. By the orders above referred to, issued within the last year, all troops have now been removed from Santa Fé, and the military quarter is left in charge of a temporary custodian.

Immediately on the receipt of the news of this action, the legisla-

ture, then in session, by a unanimous vote passed the following resolution:

Whereas it is represented that the Secretary of War has ordered the abandonment of this post, Fort Marcy, at Santa Fé; and

Whereas the legislative assembly of the Territory of New Mexico, representing the public sentiment of said Territory, is impressed that there are grave and strong considerations of public policy that require the maintenance of this time-honored and historic garrison as long as troops are assembled in the Southwest; therefore

Be it resolved, That the President of the United States, Secretary of War, and Commanding-General of the Army of the United States be, and they are hereby, earnestly appealed to to suspend the execution of said order until opportunity shall have been given for the presentation of the reasons of the people for the continuance of said post.

This was followed by an earnest representation from the civil authorities and citizens; and the general commanding the department has not ceased to urge the reestablishment of the post as a proper military measure. However cogent may be the military reasons for the reoccupation, the civil ones are even more so. New Mexico is a Territory under the direct control of the national Government. Such control ought to entail an equal responsibility and care. The Government building at Santa Fé contains the archives and documents upon which depend the titles to millions of acres of real estate. The official records of the Territory are all here. The legislature meets here, and its organization is sometimes attended by great excitement. While there is a Territorial militia, yet it is practically valueless in case of emergency because the last legislature failed to make an appropriation by which any transportation can be paid, and the credit of the Territory for this purpose has been destroyed by a similar failure to recognize previous obligations incurred by Governor Sheldon and Governor Ross when the militia was called out to prevent Indian depredations.

As at present stationed, the nearest United States troops are at Fort Stanton and Fort Wingate, both of which are so remote that no aid could be received from them in time to be of service. The consequence is that in case of any disorder or commotion too serious for the sheriff to control, property, both public and private, would be defenseless, and the Territorial authorities powerless to preserve the peace. It is certainly to be hoped that no such occasion will arise, but within the present year one sheriff was on the point of making formal application for aid, and at all events the best way to prevent such contingencies is by being prepared to meet them. The moral effect of the presence of even a small body of troops, at a central point like the capital, will probably remove all danger of any actual need of their services. I earnestly recommend that Fort Marcy be reoccupied by at least two companies, unless the district composed of New Mexico and Arizona is to be reestablished with headquarters at Santa Fé.

FUTURE DEVELOPMENT.

In my report of 1889, under the head of "Undeveloped resources," I made the assertion that, "New Mexico is endowed with a greater variety and extent of natural resources and advantages than any State in the Union." As this seemed such strong language as to savor of exaggeration, I proceeded somewhat in detail to make a comparison in order to show that the picture was not overdrawn. With the increased knowledge that we now have, few will dispute the proposition. God has endowed us with natural resources in the most generous manner. But

resources of themselves are of no value; so long as they lie dormant they are useless. It is necessary that they should be developed by human enterprise. In last year's report, under the same head, I pointed out that with all these natural advantages, we were importing from other States nearly all of the staple articles which we should produce ourselves, and presented statistics which were quite startling on this subject. They were intended to startle our own people into greater activity, and to show to others the vast "home market" which existed here for the ordinary products of the farm and the orchard.

Another year has passed, and I am able to report that in every branch of production we are having a wonderful increase and development. It is evident that the situation is being understood and acted upon. Not only are those from abroad coming to aid in this work, but our own citizens seem to be thoroughly aroused and filled with a determination to supply this home market demand by their own exertions. There is no point of view from which we can regard New Mexican affairs without seeing a marked advance.

To begin with agriculture, the acreage in crops has been largely increased all over the Territory. If we turn to horticulture, the advance is still more marked. In every section orchards are being commenced or enlarged.

Improved systems of irrigation are advancing rapidly.

The animal industries are in a more satisfactory condition than for some years.

The lumber product is increasing rapidly in all sections. In mining, unprecedented activity prevails.

In short, in all branches of practical industry New Mexico is making rapid and substantial progress. In every way her resources are being developed, and general prosperity prevails.

Nor is this all. The most important factors in our future greatness are yet to be stated. It seems as if all at once the barriers which have existed to our advancement have been broken down.

For years we have suffered under the incubus of unsettled land titles. The uncertainty which prevailed prevented sales and paralyzed enterprise. Throughout almost a generation our people had endeavored to obtain Congressional action to remedy this evil, but without effect. But at length it is accomplished. The long-hoped for relief has come. The land court is already established, and a brief time will see every element of uncertainty removed. It is impossible to realize the wonderful effect which this will have. It will give stability to titles and confidence to investors. It will bring both the men and the money which we need for our development. To supplement this, the late legislature passed an act for the incorporation of community grants, which will settle vexed questions with regard to them. The action of the legislature generally was progressive and salutary. It provided for the improvement of roads, for the incorporation of villages, for the protection of the cattle interest, for the suppression of trusts, for the impartial selection of juries, for the reduction of liquor selling, and, most important of all, for the establishment of an efficient system of public schools. The new school laws will soon cause New Mexico to be covered with public schools, and the coming generation to be the equal of that in the most favored States.

Thus in every way the tendency is upward and onward. The future is not only assured, but the full fruition of its prosperity is near at hand. Already we are enjoying the first fruits of the new era of progress. We

are producing far more and buying much less this year than last. With a little increase we will soon bring the balance of trade to our own side. No more propitious time for new citizens to take part in our manifest destiny can be imagined. The night of waiting is far spent, the day is at hand. And New Mexico welcomes all worthy men and women to join us in the pleasures and prosperity of that day.

Very respectfully,

L. BRADFORD PRINCE,
Governor of New Mexico.

REPORT

OF

THE GOVERNOR OF UTAH.

TERRITORY OF UTAH,
Salt Lake City, October 1, 1891.

SIR: In compliance with your request of July 28, 1891, I respectfully submit the following report of the affairs, and of the progress and development of the Territory of Utah, since the date of my last report, September 9, 1890.

POPULATION.

Comparative statement of the population of Utah Territory, by counties, for the years 1890 and 1891.

County.	Census report, 1890.	Assessors' returns, 1891.	County.	Census report, 1890.	Assessors' returns, 1891.
Beaver	3,340	3,147	Salt Lake	58,457	59,201
Box Elder	7,642	6,695	San Juan	365	382
Cache	15,509	16,438	San Pete	13,146	*11,350
Davis	6,469	5,406	Sevier	6,199	7,101
Emery	4,866	5,706	Summit	7,733	8,252
Garfield	2,457	2,214	Tooele	3,700	†3,301
Grand	541	521	Uintah	2,292	3,000
Iron	2,683	2,850	Utah	23,416	27,368
Juab	5,582	5,786	Wasatch	4,627	3,222
Kane	1,685	*1,110	Washington	4,009	4,351
Millard	4,033	4,500	Weber	23,005	23,179
Morgan	1,780	1,600			
Piute	2,842	2,593			
Rich	1,527	1,489			
			Total	207,905	210,762

* Several precincts missing.

† Estimated.

The above statement is based upon the returns made by the county assessors under the law of the last legislative assembly, which made it their duty to collect such statistics. It will be noticed that in twelve of the counties there is an apparent decrease of 7,109 in the population, and in the other thirteen an increase of 9,965. I do not think the returns made are reliable as a whole, as some of the counties in which a decrease is shown are in a prosperous condition. On the face of the returns the population is given at 210,762, an increase of 2,857 over the year 1890. If it be assumed the increase for the year 1891 is at least equal to the average annual increase from the year 1880 to the year 1890, the total population would now be very nearly 215,000.

IMMIGRATION.

The foreign immigration to the Territory during the past year will not exceed 2,000 and has come mainly from English and Scandinavian countries. These immigrants have located principally in Salt Lake and Ogden, and in the more thickly settled counties. The domestic immigration has been confined largely to the counties of Salt Lake, Weber, Utah, Summit, Juab, Emery, and two or three others. Within these counties are the great commercial and mining centers. The extent of this immigration can not be stated. In Salt Lake City there was a large increase in the number of registered voters prior to the annual election in August last, which indicates a steady growth. In Ogden City, and in the mining centers of Park City, Eureka, and other places, there has also been a steady growth.

ASSESSED VALUE OF PROPERTY AND INDEBTEDNESS OF CITIES AND TOWNS.

Statement showing the assessed value of the property of the incorporated cities and towns of Utah Territory, and the indebtedness of same, for the years 1890 and 1891.

	Assessed valuation of property.		Amount of indebtedness.	
	1890.	1891.	1891.	1890.
<i>Cities incorporated under special charter.</i>				
American Fork.....	\$259,950.00	\$300,000.00	\$2,400.00	\$1,100.00
Alpine City.....	70,000.00	50,000.00	100.00	150.00
Beaver.....	284,878.00	280,310.00	244.79	None.
Brigham City.....	315,056.00	464,160.00	None	Do.
Cedar City.....	93,186.00	145,784.00	do	500.00
Coalville.....	193,000.00	215,883.80	do	None.
Corinne.....	179,095.00	182,000.00	2,500.00	Do.
Ephraim.....	131,550.00	264,540.00	2,600.00	Do.
Fairview.....	74,000.00	120,000.00	None	Do.
Fillmore.....	111,000.00	100,000.00	1,500.00	1,200.00
Grantsville.....	147,662.00	150,000.00	None	None.
Hyrum.....	121,567.00	24,000.00	do	Do.
Kaysville.....	219,166.00	229,635.00	5,000.00	5,000.00
Lehi City.....	277,426.00	280,000.00	None	None.
Logan.....	1,647,278.00	1,850,000.00	1,850.00	(*)
Manti.....	254,337.00	340,000.00	6,000.00	6,000.00
Mendon.....	45,000.00	66,000.00	None	None.
Moroni.....	79,189.00	91,284.00	do	Do.
Mount Pleasant.....	200,000.00	250,000.00	do	Do.
Morgan.....		207,900.00	do	Do.
Ogden.....	7,000,000.00	13,243,965.00	250,000.00	150,000.00
Park City.....	1,195,556.00	1,800,000.00	None	None.
Parowan.....	101,380.00	108,085.00	217.22	Do.
Payson.....	265,000.00	308,500.00	None	(†)
Pleasant Grove.....	321,000.00	350,000.00	do	None.
Provo.....	3,159,430.00	3,152,620.00	1,970.00	5,000.00
Richfield.....	159,539.00	177,600.00	None	None.
Richmond.....	75,000.00	145,000.00	300.00	Do.
Salt Lake City.....	54,353,740.00	57,965,668.00	1,000,000.00	450,000.00
Smithfield.....	153,390.00	192,210.00	537.50	937.00
Spanish Fork.....	216,890.00	237,750.00	None	(*)
Spring City.....	100,000.00	80,000.00	do	None.
Springville.....	420,000.00	680,000.00	do	Do.
St. George.....	249,905.00	252,698.00	2,722.28	614.00
Tooele.....	117,500.00	151,742.00	None	2,000.00
Washington.....	50,000.00	42,800.82	do	None.
Wellsville.....	114,097.00	93,000.00	do	Do.
Willard.....	75,135.00	98,986.45	do	63.00
<i>Cities and towns incorporated under general laws.</i>				
Bear River.....	15,000.00	22,430.00	None	None.
Fountain Green.....	70,782.00	70,782.00	do	Do.
Heber.....	(‡)	(‡)	do	Do.
Kanab.....	43,600.00	43,600.00	65.00	Do.
Mona.....	75,000.00	75,652.00	do	Do.
Nephi.....	827,324.00	828,962.00	16,000.00	12,000.00
Salem.....	47,317.00	47,317.00	100.00	None.
Total.....	73,913,927.00	85,564,981.27	1,294,106.79	632,564.00

* No report.

† Surplus on hand.

‡ No assessment made.

The increase in municipal indebtedness for the year is 104.58 per cent. The increase in the assessed value of property within the corporate limits of the municipalities is 15.7 per cent.

REVENUE FOR 1890.

Statement of the revenue from the tax levy for the year 1890, at the rate of five mills on the dollar, for Territorial and school purposes.

Counties.	Value of prop-erty assessed.	Territorial and school tax.	Counties.	Value of prop-erty assessed.	Territorial [and school] tax.
Box Elder.....	\$3,969,438.00	\$19,847.19	Salt Lake.....	\$52,270,966.00	\$261,354.83
Beaver.....	1,004,896.00	5,024.48	Summit.....	3,794,826.00	18,974.13
Cache.....	4,002,866.00	20,014.33	San Pete.....	2,911,890.00	14,599.43
Davis.....	3,162,710.00	15,813.55	Sevier.....	1,050,644.00	5,253.22
Emery.....	1,294,926.00	6,474.63	San Juan.....	276,436.00	1,382.43
Garfield.....	366,312.00	1,831.56	Tooele.....	1,593,956.00	7,969.78
Grand.....	762,420.00	3,812.10	Utah.....	8,951,720.00	44,758.60
Iron.....	589,390.00	2,946.95	Unitah.....	582,046.00	2,910.23
Juab.....	2,305,320.00	11,526.66	Weber.....	14,661,756.00	73,308.00
Kane.....	374,794.00	1,873.97	Wasatch.....	1,086,068.00	5,430.34
Morgan.....	828,400.00	4,142.00	Washington.....	802,330.00	4,011.65
Millard.....	703,940.00	3,519.70			
Pi Ute.....	605,386.00	3,026.93			
Rich.....	658,730.00	3,293.65			
			Total.....	108,612,216.00	543,061.08

The assessment rolls as originally returned to the county courts gave the total valuation at \$104,758,750. This was increased to \$108,612,216.

The assessed value for 1891, as shown in the table giving the valuation for the year by counties, is \$121,146,648.37.

The tax levy for the year at the rate fixed by law, one-half of one per cent, will amount to \$600,233.44, an increase of 10.5 per cent.

Statement showing total revenue for each year from 1854, and the total assessed value of property from 1855.

Year.	Territorial and school tax.	Value of prop-erty assessed.	Year.	Territorial and school tax.	Value of prop-erty assessed.
1854.....	\$6,386.31	(*)	1873.....	\$53,870.87	\$21,548,348.00
1855.....	17,348.89	\$3,469,770.00	1874.....	57,021.45	(*)
1856.....	16,999.38	2,937,977.00	1875.....	58,222.95	23,289,180.00
1857.....	12,892.43	2,578,486.00	1876.....	50,020.11	23,608,064.00
1858.....	9,032.32	(*)	1877.....	56,384.15	22,553,660.00
1859.....	9,957.17	3,982,869.00	1878.....	146,903.77	24,483,957.00
1860.....	23,369.50	4,673,900.00	1879.....	149,910.43	24,985,072.00
1861.....	25,160.92	5,032,184.00	1880.....	151,335.24	25,222,540.00
1862.....	47,795.18	4,779,518.00	1881.....	153,495.40	25,579,234.00
1863.....	50,482.00	548,200.00	1882.....	174,483.93	29,080,656.00
1864.....	33,480.02	6,696,004.00	1883.....	185,006.55	30,834,425.00
1865.....	47,269.65	9,453,930.00	1884.....	203,549.64	33,924,942.00
1866.....	52,338.98	10,467,796.00	1885.....	208,931.72	34,851,957.00
1867.....	53,239.13	10,647,826.00	1886.....	214,105.93	35,684,322.00
1868.....	52,669.36	10,533,872.00	1887.....	227,361.48	37,893,580.00
1869.....	59,968.03	11,393,606.00	1888.....	282,636.61	46,868,247.00
1870.....	33,639.09	13,455,636.00	1889.....	305,016.14	49,883,690.00
1871.....	38,163.56	15,265,424.00	1890.....	543,061.08	108,612,216.00
1872.....	43,976.40	17,590,560.00			

* No data from which to obtain the amount.

REAL AND PERSONAL PROPERTY AND IMPROVEMENTS, 1891.

Statement showing the assessed valuation of real and personal property and improvements in the several counties for 1891.

Counties.	Real property.	Improvements.	Personal property.	Total.	
				1891.	1890.
Beaver	\$233,705.00	\$605,690.00	\$489,727.00	\$1,329,122.00	\$1,293,859.50
Box Elder	1,078,655.00	1,841,336.00	1,174,257.00	4,094,248.00	1,821,526.00
Cache	4,757,423.00	876,630.00	524,279.00	6,158,332.00	4,076,329.00
Davis	2,413,982.00	525,575.00	556,878.00	3,496,435.00	2,686,401.00
Emery	325,798.00	7,000.00	379,494.00	1,433,786.00	909,888.00
Garfield	73,827.00	81,147.00	333,984.00	489,958.00	334,639.00
Grand	27,675.00	550,244.43	290,908.00	810,032.43	817,715.50
Iron	203,096.00	151,000.00	362,589.00	716,685.00	605,003.00
Juab	711,963.00	468,890.00	637,803.00	1,818,656.00	2,508,774.00
Kane	68,565.00	63,470.00	207,764.00	339,799.00	503,152.00
Millard	670,245.00	160,710.00	373,901.00	1,204,856.00	-----
Morgan	368,375.00	377,970.00	161,375.00	907,720.00	535,765.00
Pi Ute	129,537.00	61,803.00	279,840.00	471,180.00	511,004.00
Rich	487,268.00	72,635.00	236,447.00	796,350.00	677,566.00
Salt Lake	39,195,819.27	6,597,095.00	13,934,558.67	59,727,472.94	52,171,000.00
San Juan	3,400.00	800.00	330,478.00	334,678.00	312,464.00
San Pete	1,349,010.00	705,870.00	521,078.00	2,575,958.00	2,588,158.00
Sevier	415,972.00	216,870.00	559,073.00	1,191,915.00	845,957.00
Summit	1,699,238.00	1,472,938.00	789,417.00	3,961,593.00	3,389,182.00
Tooele	511,425.00	271,635.00	593,368.00	1,375,428.00	1,321,505.00
Uintah	187,257.00	100,230.00	341,528.00	629,015.00	302,396.00
Utah	6,284,902.00	2,442,780.00	1,623,925.00	10,357,607.00	10,216,916.00
Washington	193,800.00	229,050.00	229,050.00	852,226.00	770,700.00
Wasatch	558,060.00	251,540.00	251,540.00	1,192,730.00	990,236.00
Weber	10,826,000.00	2,617,000.00	4,604,000.00	18,047,000.00	4,568,597.00
Total	70,411,015.27	20,224,333.43	29,787,261.67	121,146,648.37	104,758,750.00

The increase in valuation over last year is \$16,387,898.37 or 15.65 per cent.

UNITED STATES LAND OFFICE.

Statement of the business of the United States land office at Salt Lake City, Utah, for the fiscal year ending June 30, 1891:

Kind of entry.	Number.	Acreage.	Amount.
Cash entries	226	19,160.16	\$36,893.86
Mineral entries	103	3,460.45	14,382.00
Mineral applications	134	4,354.58	1,330.00
Desert applications	245	43,305.22	12,609.80
Desert final entries	75	17,112.80	17,873.99
Homestead final entries	242	34,751.96	1,516.49
Homestead entries	373	51,415.26	5,778.58
Timber-culture entries	69	8,079.69	821.00
Timber-culture final entries	1	80.00	4.00
Adverse mining claims	40	-----	400.00
Preëmption filings	226	28,960.00	678.00
Coal filings	45	6,560.00	153.00
Coal entries	10	1,401.96	20,048.90
Railroad selections	5	90,991.98	1,136.00
Testimony fees	-----	-----	575.60
Total	-----	309,634.07	114,201.22

	Acres.
Total area surveyed in Utah to June 30, 1891	12,755,475.08
Total area surveyed and approved during fiscal year ending June 30, 1891	332,729.08

SETTLEMENT OF PUBLIC LANDS IN UTAH TERRITORY.

Statement showing the disposition and settlement of public lands in Utah Territory, and the total business of the land office at Salt Lake City from the time of its opening in March, 1869, to the end of the fiscal year ending June 30, 1891.

	Number.	Acreage.	Amount.
Cash entry	3,821	366,580.02	\$570,339.62
Mineral entry	1,751	18,048.2388	86,947.00
Mineral application	2,012	8,545.5938	3,863.00
Desert applications	3,341	682,478.75	178,397.75
Desert final	724	135,248.56	136,049.75
Homestead entry	9,037	10,091,142.72	140,663.71
Homestead final entry	4,709	646,809.30	30,114.63
Timber culture	1,577	179,303.49	17,902.00
Timber final	15	1,580.00	60.00
Adverse claims	888	612.05	7,515.00
Preëmption filings	11,989	1,444,342.70	35,967.00
Coal filings	1,104	138,640.00	3,320.00
Coal cash entries	18	7,513,800.16	192,343.12
Central and Union Pacific selections	5	546,748.65	6,886.64
Soldiers' and sailors' scrip		13.00	27.03
Land warrants		23,957.00	615.00
Agricultural college scrip		84,912.00	2,232.00
Valentine scrip		440.00	11.00
Chippewa scrip		80.00	2.00
Supreme Court		4,360.02	
Timber sold			127.08
Timber depredations			12,632.59
Testimony fees			16,354.28
Stampage			2,788.72
Totals		21,887,642,2926	1,445,158.92

Number of acres under cultivation, irrigated, and under inclosure for pasture, 1890.

Counties.	Under cul- tivation.	Irrigated.	Under in- closure for pasture.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Beaver	5,558	6,350	2,161
Box Elder	26,177	9,708	35,938
Cache	54,301	30,951	23,378
Davis	23,161	10,591	12,232
Emery	14,363	13,062	3,223
Garfield	1,716	1,990	1,145
Grand	1,416	1,375	2,827
Iron	4,523	3,956	1,098
Juab	9,489	4,914	7,372
Kane	1,087	722	4,931
Millard	8,152	8,152	7,308
Morgan	5,633	5,633	3,120
Piute	7,779	9,918	3,425
Rich	15,726	26,099	16,468
Salt Lake	30,555	29,107	14,415
San Juan	809	927	2,005
San Pete	47,113	33,859	11,185
Sevier	8,118	15,340	6,185
Summit	14,508	14,550	702
Tooele	7,524	5,343	11,367
Uintah	8,960	10,054	1,943
Utah	40,195	36,586	16,008
Washington	4,203	4,203	
Weber	22,450	17,004	17,107
Wasatch	10,824	10,365	352
Total	374,340	310,759	205,895

UNOCCUPIED LANDS—IRRIGATION CONGRESS—PUBLIC LANDS.

In my annual reports for 1889 and 1890 I referred to the unsatisfactory condition of the unoccupied public lands in the Territory (about 31,000,000 acres), now mainly used for grazing purposes, and to the

necessity of improving the water supply. The grazing ranges are depreciating in value yearly and will continue to do so until some provision be made under which the title to limited tracts can pass to those who are directly interested in preserving the natural forage which grows upon them. Their condition is a matter of public concern and should receive immediate attention. The reclamation of the arid lands is of equal, if not greater importance. The amount of land which can now be irrigated in Utah is 735,226 acres. The amount which could be irrigated if the necessary work is done to increase the water supply is about 2,304,000 acres. In my last report I said—

The question of irrigation in the arid region is now receiving attention from Congress. It is now very plain that unless some artificial methods be employed the limit of cultivation will soon be reached. The water supply in these arid regions is derived from the rivers which have their source in the heart of the great mountain ranges. They are fed by the melting snows and find their way to the valleys below through deep cañons. The water is diverted from these cañon streams at or near the mouth of the cañon by means of canals and spread over the land.

Until the climate changes no other supply of water can be depended upon, for owing to the limited water surface, there is not sufficient solar evaporation to furnish the necessary rainfall.

It then becomes a matter of vital importance that something be done to store the amount of water which pours down these cañons in the fall, winter, and spring. To do this successfully will require the construction of large engineering works on a scale and at a cost far beyond the financial ability of the average settler—

and recommended that the title to the unoccupied lands “be vested in the Territory; the proceeds arising from the sales to be used for the improvement of the water supply, or as an endowment for the public schools.”

During the past year the people of the West have given the problem of reclaiming the arable arid lands of the West serious consideration. It seems that if the growth of the West is to depend upon the settlement of the public lands there must be some provision made to enable settlers to obtain water for cultivation at reasonable expense. There is but a small quantity of land now left, and in only few localities, for which water can be obtained without great expense. The drift of public opinion has been unmistakably in favor of the cession of the public lands, excepting the mineral lands, to the States and Territories for the purpose of developing the water supply, and in aid of the public schools. The Trans-Mississippi Congress, composed of delegates from all States and Territories west of the Missouri River, which met in Denver, Colo., on May 19, 1890, adopted the following resolution:

ARID LANDS.

Resolved, That it is the sense of this congress that the General Government should, under proper restrictions, cede to the several States and Territories of the arid region the public lands within their borders, excepting such lands as are more valuable for mining than agricultural purposes: *Provided*, That no State or Territory shall be permitted to sell such lands for less than \$1.25 per acre, nor more than 320 acres to one person, nor to any other than an American citizen, who shall, at the time of purchase, be an actual citizen of the State or Territory in which said land shall be: *And provided further*, That said State or Territory shall apply the funds arising from the sale of said lands to the reclamation of the same and to school purposes.

Resolved, That the National Government shall make such appropriations as may be necessary to place under irrigation those lands which have been settled upon as agricultural lands and proven unfit therefor.

A State irrigation congress was held at Lincoln, Nebr., in February last, and a resolution adopted calling for an interstate convention. This was brought to my attention, and the suggestion made that the congress should be held in Salt Lake City. The proposition seemed to

me to be worthy of immediate attention. I thought, however, that the call for the congress should be accompanied by some evidence showing that the people from whom the call emanated were in sympathy with it, and suggested that the chamber of commerce of Salt Lake City, the leading city of the Territory, should adopt resolutions urging that the congress be held. This action was taken, and thereupon, as the governor of the Territory, I issued the following call:

EXECUTIVE OFFICE, *Salt Lake City, June, 12, 1891.*

To His Excellency the Governor of the ——— of ———:

SIR: I have the honor to inclose a copy of a resolution adopted at a meeting of the members of the chamber of commerce, held in this city on June 3, 1891, and in accordance therewith respectfully request that you appoint thirty delegates at large, to represent your State at a convention to be held in Salt Lake City, Utah, beginning on Tuesday, September 15, 1891, at 12 o'clock noon, and continuing through Wednesday and Thursday, September 16 and 17.

This convention is called to consider matters pertaining to the reclamation of the arid public lands of the West and to petition Congress to cede to each State and Territory the arid lands within its borders for purposes of reclamation, for the support of its public schools and for such other public purposes as the legislature of each State or Territory may respectively determine.

The various commercial, agricultural, scientific, and mechanical associations, together with each municipal corporation, in the several States and Territories west of the Missouri River, are also requested to send delegates to this convention.

I have the honor to remain, respectfully,

ARTHUR L. THOMAS,
Governor of Utah.

The call met with a very favorable reception, and on September 15, 1891, the congress convened at Salt Lake City, and remained in session for three days. The personnel of the congress was quite impressive, including many of the leading men of the West. After full and intelligent discussion, the sentiment of the congress crystallized in the adoption of the following resolutions:

Resolved, That it is the sense of this convention that the committee selected to propose and present to Congress the memorial of this convention respecting public lands should ask, as a preliminary to the cession of all the land in the Territories in accordance with the resolutions of the convention, a liberal grant to said Territories and to the States to be formed therefrom of the public lands to be devoted to public school purposes.

Resolved, That this congress is in favor of granting in trust, upon such conditions as shall serve the public interest, to the States and Territories needful of irrigation, all lands now a part of the public domain within such States and Territories, excepting mineral lands, for the purpose of developing irrigation, to render the lands now arid fertile and capable of supporting a population.

The subject of the support of the public schools, especially in Utah, was fully discussed in the Congress. I take this occasion to present some statements bearing on the subject, and which I hope may serve to show that legislation is needed to put the educational interests of Utah on an equal footing with the States and other Territories which have been benefited by Government donations.

The Territory contains about 52,601,600 acres, an area about five-sixths of all New England. The larger part is so mountainous that it can never be tilled, and tillage of the small part of the lands which lie in and on the borders of the valley is further limited by the supply of water for irrigation. Nearly one-fourth of this area—about 12,500,000 acres—has been surveyed. The land office here was opened in March, 1869, but the Territory had considerable settlement in the year 1850 and prior thereto, and previous to the Government surveys the best land in the Territory, and that which could most easily be irrigated (including school sections), was taken up, and has since been conveyed to the settlers.

Under the land laws the schools and university have only for lieu lands a choice from lands not tillable and of little value.

If the entire revenue derived from the sale of agricultural lands in Utah was donated to the public schools it would not, for many years, make a school fund equal to the revenue derived by some States from the sale of the school sections. It is probable that the revenue from the sale of agricultural lands will greatly decrease so soon as payments for entries now made are completed, for the demand and search for land which can be tilled and irrigated has been such that by the time lieu lands can be selected for schools the remaining lands will be nearly worthless. Even where school lands in desirable locations were surveyed before settlement, and are reserved, the water in the vicinity is all appropriated, and the lands reduced to nominal value. This same condition of affairs exists in regard to the university lands, which have been recently selected but not utilized, and at the time of the selection the best lands in the Territory and the water for irrigation had been appropriated. The result is that the educational interest of the Territory will not have the benefit of any considerable fund, and must always be supported by direct taxation. The large area of the Territory, sparsely settled except at a few points, will make the support of the public-school system expensive in proportion to the amount of the taxable property and number of the pupils. In 1890 there were 213 organized school districts, with a total population of about 207,000.

To put the Territory on an equality with the States and the Territories where public surveys preceded or accompanied settlement and where lieu lands could be selected in place of those previously occupied will require legislation, and there occurs to me two ways: Either to donate to the Territory non-mineral lands, as suggested by the resolutions adopted by the irrigation congress, or to give a percentage from the sale of non-mineral lands, to be invested as a fund for the support of the schools and university.

PUBLIC BUILDINGS.

I respectfully renew the recommendation made in former reports for the erection of public buildings at Salt Lake and Ogden cities. The Senate of the United States passed bills introduced for this purpose, and in the House of Representatives the Committee on Public Buildings and Grounds reported the bills with a favorable recommendation and they were placed on the Calendar, where they remained, despite the most earnest efforts to have them brought before the House for consideration.

If the Congress could be made to fully appreciate the urgent needs of the public service in these cities there would be no delay in authorizing the erection of the buildings.

OLD CAPITOL BUILDING.

The old capitol building at Fillmore is still used for school purposes. The Presbyterian mission school and the Millard Stake Academy occupy the building with the understanding that they must keep it in repair.

PENITENTIARY.

The addition to the Utah penitentiary authorized by Congress has been completed at a cost of \$95,000.

On June 1, 1891, the Department of the Interior appointed the gov-

ernor, secretary, and surveyor-general of the Territory, a committee to examine and deliver to the United States marshal for Utah, representing the Department of Justice, the building, if completed in accordance with the plans and specifications. The committee visited the penitentiary and carefully inspected all the new work, and finding the building to have been properly constructed, on July 8, 1891, they delivered the keys to the United States marshal, and took his receipt therefor, on behalf of the Department of Justice.

INDUSTRIAL HOME.

The Utah Commission will make their annual report respecting the Home before the meeting of Congress.

DESERET UNIVERSITY.

During the past year the university has advanced rapidly in popular favor. The attendance for the coming year will be the largest in its history. There is no reason to doubt that the university is destined to become the leading educational institution of the Territory if not of the intermountain country.

REFORM SCHOOL.

The school has been gradually meeting the necessity which prompted the passage of the law creating it. Unfortunately for the Territory, on June 24, 1891, the building was almost destroyed by fire. The insurance of \$30,000 enabled the trustees to commence the work of rebuilding. It will probably require an additional appropriation from the Territorial treasury to complete the building.

AGRICULTURAL COLLEGE.

On September 30, 1891, the attendance at the college was about 175, with increasing numbers. The college is meeting with a most generous support, and promises to be of great benefit to the Territory. During the past year about \$50,000 have been expended in the erection of new buildings and improving the grounds.

INDIANS.

I have nothing new to add to my former statements respecting the 1,500 or more Indians who have renounced their tribal relations and are scattered throughout the Territory. At the last session of Congress an appropriation of \$10,000 was made for the relief of the Shebit Indians in Washington County, Utah. The law provided the money should be used for their temporary support, and to enable them to become self-supporting. Similar action should be taken for the relief of the Indians in Tooele County, who are anxious to own their land, and those in Garfield, San Juan, Sevier, Kane, and Iron counties.

REMOVAL OF THE COLORADO UTES TO UTAH

If newspaper statements are to be accepted as reliable the attempt to remove the Colorado Utes to Utah, which failed to receive the sanction of the last Congress, is to be renewed at the next session of Con-

gress. The people of the Territory through their legislative assembly have protested against the unloading of the Indians upon them. After a full investigation of the matter by the Senate Committee on Indian Affairs it was decided not to recommend the passage of the bill authorizing the removal. In justice to the Territory the matter should no longer be agitated. Because of these determined attempts to remove these Indians to Utah, the public lands in San Juan County, embraced within the limits of the proposed reservation, have been withdrawn from settlement. I have received many letters from settlers and others earnestly requesting me to urge the General Land Office to revoke the order of withdrawal. I have no doubt if this is done that many persons will avail themselves of the opportunity to obtain homesteads in this sparsely settled county. I trust this matter will receive immediate attention from the Department and the settlers be permitted to enter the lands.

The lands were withdrawn from entry on November 15, 1888. The following correspondence will explain the matter.

[Telegram.]

WASHINGTON, D. C., *November 15, 1888.*

You are hereby directed to refuse until further orders all entries or filings for land in San Juan County. Copy of letter of November 14, 1888, from honorable Secretary of the Interior will be forwarded.

S. M. STOCKSLAGER,
Commissioner.

REGISTER and RECEIVER,
Salt Lake City, Utah.

DEPARTMENT OF THE INTERIOR, GENERAL LAND OFFICE,
Washington, D. C., November 30, 1888.

GENTLEMEN: Referring to my telegram to you of November 15, 1888, I inclose herewith copy of Secretary's instructions of November 14, 1888, withdrawing from entry until further orders, all the public land in San Juan County, Utah Territory, for the use of the Southern Utes.

Very respectfully,

T. J. ANDERSON,
Assistant Commissioner.

REGISTER and RECEIVER,
Salt Lake City, Utah.

DEPARTMENT OF THE INTERIOR,
Washington, D. C., November 14, 1888.

SIR: I am advised by the Secretary of the Commission appointed to negotiate for the removal of the Southern Utes from Colorado that negotiations with those Indians have reached such a state of progress as to indicate that San Juan County in Utah Territory may be set apart for their use, and I have therefore to direct that, until further orders, no entries or filings be allowed upon the public lands in that county and to request that you will communicate such instruction to the register and receiver of the district within which the county lies, by telegraph.

Respectfully, yours,

WM. F. VILAS,
Secretary.

The COMMISSIONER OF THE GENERAL LAND OFFICE.

LIVE STOCK.

Statements showing the number of horses, mules, asses, cattle, sheep, milch cows, goats, and swine assessed in Utah Territory for the years 1889, 1890, and 1891, and the assessed value for 1891.

Counties.	Horses.				Cattle.			
	1889.	1890.	1891.	Assessed value.	1889.	1890.	1891.	Assessed value.
Beaver.....	1,866	2,574	2,513	\$73,322.00	4,917	6,392	6,740	\$85,217.00
Box Elder.....	4,220	4,477	5,724	103,332.00	10,849	10,094	13,297	159,764.00
Cache.....	5,057	6,262	7,869	369,412.00	9,243	9,988	12,913	151,032.00
Davis.....	2,346	5,060	3,145	148,989.00	4,456	9,538	5,530	93,625.00
Emery.....	2,544	2,626	2,616	86,373.00	12,342	9,707	5,530	57,360.00
Garfield*.....	2,059	2,032	1,208	30,200.00	8,418	9,024	6,256	76,536.00
Grand.....		1,131	1,504	36,539.00		23,543	19,593	196,120.00
Iron.....	1,738	1,875	2,202	69,885.00	1,867	6,706	8,968	114,373.00
Juab.....	2,350	2,097	2,093	73,420.00	3,645	2,790	3,117	46,021.00
Kane.....	2,312	2,145	3,160	61,813.00	8,202	9,801	12,949	203,680.00
Millard*.....	3,607	4,891	3,662	67,092.00	4,875	6,206	8,605	109,713.00
Morgan.....	1,066	1,233	1,329	52,420.00	3,107	3,547	3,333	37,375.00
Pi Ute.....	2,105	2,464	2,053	59,931.00	7,323	9,415	4,582	54,486.00
Rich.....	2,542	2,366	2,174	74,343.00	11,756	9,307	8,503	106,277.00
Salt Lake.....	5,032		8,438	(†)	6,226		8,126	(†)
San Juan.....	780	791	1,035	29,190.00	22,054	27,392	26,362	263,625.00
San Pete.....	5,186	5,002	4,995	190,907.00	9,364	9,711	10,161	119,899.00
Sevier.....	3,415	3,902	2,790	84,767.00	8,622	10,513	14,719	185,079.00
Summit.....	2,689	3,308	2,911	134,893.00	9,480	8,845	8,966	134,378.00
Tooele.....	3,854	3,682	3,704	97,047.00	4,790	4,844	5,061	72,447.00
Utah.....	6,740	6,781	7,657	335,840.00	13,192	12,013	12,059	156,050.00
Unitah.....	6,671	3,149	3,542	97,361.00	2,851	11,494	9,469	95,439.00
Wasatch.....	1,958	2,000	2,360	90,366.00	10,614	9,383	10,211	125,285.00
Washington.....	1,686	1,965	2,397	90,575.00	9,041	10,402	10,209	131,836.00
Weber.....	3,900	4,082	4,498	184,065.00	7,333	6,841	6,976	95,900.00
Total.....	75,723	75,895	84,371	2,642,021.00	199,567	237,496	232,933	2,794,977.00

Counties.	Sheep.				Milch cows.		
	1889.	1890.	1891.	Assessed value.	Number.	Standing, in order of number.	Value at \$30 per head.
Beaver.....	32,950	48,061	97,826	\$190,836.00	1,036	17	\$31,080.00
Box Elder.....	74,521	80,215	97,593	195,186.00	2,327	9	69,810.00
Cache.....	4,234	4,010	1,758	3,835.00	5,276	1	158,280.00
Davis.....	897	4,962	10,783	19,344.00	2,507	7	75,210.00
Emery.....	99,293	156,440	21,410	42,820.00	974	19	29,220.00
Garfield.....	16,026	16,311	26,402	42,243.00	1,649	13	49,470.00
Grand.....			14,000	24,000.00	64	25	1,920.00
Iron.....	26,312	41,642	48,967	97,079.00	1,797	12	53,910.00
Juab.....	148,900	132,220	143,611	287,314.00	2,428	8	72,840.00
Kane.....	77,879	85,346	96,025	192,050.00	1,134	16	34,020.00
Millard.....	121,555	180,088	190,000	375,000.00	934	20	28,020.00
Morgan.....	937	947	4,568	9,135.00	703	22	21,090.00
Pi Ute.....	43,229	27,440	36,735	73,538.00	1,629	14	48,870.00
Rich.....	5,651	4,201	6,640	13,280.00	861	21	25,830.00
Salt Lake.....	10,862		201,536	(†)	5,095	2	152,850.00
San Juan.....	6,300	6,100	9,850	13,700.00	213	24	6,390.00
San Pete.....	45,800	2,423	105,136	210,272.00	3,885	5	116,550.00
Sevier.....	53,708	31,967	22,989	120,317.00	4,249	3	127,470.00
Summit.....	602	8,304	4,923	8,236.00	2,305	10	69,150.00
Tooele.....	237,620	189,088	162,469	250,421.00	1,021	18	30,630.00
Utah.....	69,525	63,347	101,605	182,035.00	4,190	4	125,700.00
Unitah.....	16,875	41,115	41,165	61,876.00	639	23	19,170.00
Wasatch.....	17,147	9,322	10,731	21,395.00	1,625	15	48,750.00
Washington.....	15,100	11,843	14,680	29,000.00	1,835	11	55,050.00
Weber.....	2,190	4,903	13,990	27,955.00	3,690	6	110,700.00
Total.....	1,128,113	1,156,295	1,495,392	2,490,866.00	52,066		1,561,980.00

*The total assessed value of horses, sheep, and cattle in Salt Lake County is \$237,909.

†Estimated.

LIVE STOCK—Continued.

Statements showing the number of horses, mules, asses, cattle, etc.—Continued.

Counties.	Goats.			Swine over 6 months old.		
	Number.	Standing, in order of number.	Value at \$2.50 per head.	Number.	Standing, in order of number.	Value at \$8 per head.
Beaver	1	14	\$2. 50	690	9	\$5, 520. 00
Box Elder	9	8	22. 50	751	8	6, 008. 00
Cache				1, 792	5	14, 336. 00
Davis				1, 443	6	11, 544. 00
Emery				390	17	3, 120. 00
Garfield	19	6	47. 50	88	23	704. 00
Grand				53	24	428. 00
Iron				351	18	280. 00
Juab	6	10	15. 00	600	11	4, 800. 00
Kane	1, 080	1	2, 700. 00	120	22	960. 00
Millard				448	14	3, 584. 00
Morgan				478	15	3, 824. 00
Pi Ute	2	13	5. 00	413	15	3, 304. 00
Rich	10			188	21	1, 504. 00
Salt Lake	22	5	55. 00	1, 915	4	15, 320. 00
San Juan				19	25	152. 00
San Pete	1	14	2. 50	2, 067	2	16, 536. 00
Sevier	18	7	45. 00	1, 398	7	11, 184. 00
Summit	25	4	62. 50	252	20	2, 016. 00
Tooele	8	9	20. 00	299	19	2, 392. 00
Utah	4	12	10. 00	1, 953	3	15, 624. 00
Uintah	190	2	475. 00	669	10	5, 352. 00
Wasatch	5	11	12. 50	410	16	3, 280. 00
Washington				504	12	4, 032. 00
Weber	118	3	295. 00	120	1	24, 960. 00
Total	1, 508		3, 770. 00	20, 411		163, 238. 00

Counties.	Mules.			Asses.		
	Number.	Standing, in order of number.	Value at \$75 per head.	Number.	Standing, in order of number.	Value at \$40 per head.
Beaver	59	9	\$4, 425. 00	4	11	\$160. 00
Box Elder	64	8	4, 800. 00	1	14	40. 00
Cache	67	7	5, 025. 00	3	12	120. 00
Davis	24	16	1, 800. 00			
Emery	87	4	6, 525. 00	100	1	4, 000. 00
Garfield	16	19	1, 200. 00	7	9	280. 00
Grand	19	18	1, 425. 00	34	2	1, 360. 00
Iron	9	22	675. 00	10	8	400. 00
Juab	59	9	4, 425. 00	32	3	1, 280. 00
Kane	11	21	825. 00	14	6	560. 00
Millard	47	12	3, 525. 00	15	5	600. 00
Morgan						
Pi Ute	31	14	2, 325. 00	5	10	200. 00
Rich	77	6	5, 775. 00			
Salt Lake	1, 464	1	109, 800. 00	3	12	120. 00
San Juan	25	15	1, 875. 00	15	5	600. 00
San Pete	80	5	6, 000. 00	5	10	200. 00
Sevier	53	11	3, 975. 00	11	7	440. 00
Summit	20	17	1, 500. 00			
Tooele	57	10	4, 275. 00	5	10	200. 00
Utah	105	3	7, 875. 00	2	13	80. 00
Uintah	42	13	3, 150. 00	15	5	600. 00
Wasatch	12	20	900. 00	4	11	160. 00
Washington	19	18	1, 425. 00	23	4	920. 00
Weber	124	2	9, 300. 00	10	8	400. 00
Total	2, 571		192, 825. 00	318		12, 720. 00

Increase for the year:

Horses

No. Per cent.

8, 476 10. 1

Sheep

339, 097 20. 5

Decrease for the year:

Cattle

4, 563 1. 9

Wool clip for the year (estimated)

pounds.. 12, 000, 000

Number of cattle exported (estimated)

do.... 35, 000

Number of sheep exported (estimated)

do.... 310, 000

In my last report I said a corporation was about to be formed for the purpose of establishing stock yards and packing-houses at Salt Lake City. The corporation was formed, and is now engaged in preparing the land purchased for use.

THE MINING INDUSTRY.

Statement showing value and amount of the principal mineral product of Utah from 1879 to 1890, both inclusive.

	Refined lead.		Unrefined lead.	
	Amount.	Value.	Amount.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>	
1879.....	2,301,276	\$103,557.42	26,315,359	\$592,095.57
1880.....	2,892,498	144,624.90	25,657,643	641,444.75
1881.....	2,645,373	145,495.51	38,222,185	955,554.62
1882.....	8,213,798	410,690.00	52,349,850	1,361,096.00
1883.....	3,230,547	161,527.00	63,431,964	1,585,799.00
1884.....	4,840,987	169,434.54	56,023,893	980,418.12
1885.....			54,318,776	1,222,176.46
1886.....	208,800	9,667.44	48,456,260	1,405,231.54
1887.....	2,500,000	111,750.00	45,678,961	1,196,788.77
1888.....			44,567,157	1,203,313.23
1889.....	2,359,540	89,662.52	59,421,730	1,378,584.13
1890.....	5,082,800	203,312.00	63,181,817	1,895,454.51
Total	34,273,619	1,549,721.32	577,625,595	14,417,953.70

	Silver.		Gold.		Copper.	
	Amount.	Value.	Amount.	Value.	Amount.	Value.
	<i>Ounces.</i>		<i>Ounces.</i>		<i>Pounds.</i>	
1879.....	3,732,247	\$4,106,351.70	15,732	\$298,908.00		
1880.....	3,663,183	4,029,501.30	8,020	160,400.00		
1881.....	4,958,345	5,503,762.95	6,982	139,640.00		
1882.....	5,435,444	6,114,874.00	9,039	180,780.00	605,880	\$75,735.00
1883.....	4,531,763	4,984,939.00	6,991	139,820.00		
1884.....	5,669,488	6,123,047.04	5,530	110,600.00	63,372	6,337.20
1885.....	5,972,689	6,221,596.56	8,903	178,060.00		
1886.....	5,918,842	5,860,837.34	10,577	211,540.00	2,407,550	144,453.00
1887.....	6,161,737	5,976,884.89	11,387	227,740.00	2,491,320	124,566.00
1888.....	6,178,855	5,787,527.51	13,886	277,720.00	2,886,816	288,681.60
1889.....	7,147,651	6,656,254.65	24,975	499,500.00	2,060,792	206,079.20
1890.....	8,165,586	8,492,209.44	33,851	677,020.00	956,708	76,536.64
Total	67,535,830	69,848,786.48	155,873	3,101,728.00	11,472,438	922,388.64

INCREASE OVER 1890.

	Per cent
In pounds of unrefined lead.....	6.33
In pounds of refined lead	115.33
In ounces of silver	14.10
In ounces of gold	35.53

DECREASE.

In pounds of copper	115.40
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METAL PRODUCT FOR 1890.

Wells, Fargo & Co.'s statement of the mineral product of Utah for 1890.

[Furnished by Mr. J. E. Dooly, cashier.]

	Copper.	Lead.		Silver—		Gold—	
		Refined.	Unrefined.	In bars.	In base bullion and ores.	In bars.	In bullion and ores.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Ounces.</i>	<i>Pounds.</i>	<i>Ounces.</i>	<i>Ounces.</i>	<i>Ounces.</i>
Germania Lead Works	257, 270	5, 082, 800	2, 198, 776	418, 526	91, 544	3, 728	1, 030
Hanauer Smelter	150, 000	.....	8, 240, 000	.....	710, 250	.....	4, 170
Mingo Furnace Co	530, 538	.....	10, 075, 171	.....	1, 251, 986	.....	12, 987
Daly Mining Co .....	.....	.....	1, 417, 274	629, 675	159, 582	481	216
Ontario Silver Mining Co ..	.....	.....	3, 204, 578	985, 231	801, 611	.....	1, 090
Silver Reef District	18, 900	.....	.....	43, 513	.....	.....	.....
Other mines and placers ..	.....	.....	.....	5, 816	.....	87	.....
Net product bars and base bullion	956, 708	5, 082, 800	25, 135, 799	2, 082, 761	3, 024, 973	4, 296	19, 493
Contents ores shipped .....	.....	.....	38, 046, 018	.....	3, 057, 852	.....	10, 062
Totals	956, 708	5, 082, 800	63, 181, 817	2, 082, 761	6, 082,	4, 296	29, 555

RECAPITULATION.

956,708 pounds copper at 8 cents per pound	\$76, 536. 64
5,082,800 pounds refined lead at 4 cents per pound	203, 312. 00
63,181,817 pounds unrefined lead at \$60 per ton	1, 895, 454. 51
8,165,586 ounces fine silver at \$1.4 per ounce	8, 492, 209. 44
33,851 ounces fine gold at \$20 per ounce	677, 020. 00

Total export value..... 11, 344, 532. 59

Computing the gold and silver at their mint valuation, and other metals at their value at the seaboard, it would increase the value of the product to \$14,346,783.33.

Comparative statement showing the quantity of silver and gold contained in base bullion produced in Utah.

Year.	Silver produced.	Gold produced.	Silver in ores and base bullion.	Gold in ores and base bullion.	Silver product.	Gold product.
	<i>Ounces.</i>	<i>Ounces.</i>	<i>Ounces.</i>	<i>Ounces.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1877	4, 359, 703	17, 325	2, 102, 098	11, 035	48. 2	63. 6
1878	4, 357, 328	15, 040	2, 108, 359	10, 165	48. 3	67. 5
1879	3, 835, 047	15, 932	1, 797, 589	5, 693	46. 8	35. 7
1880	3, 783, 566	8, 020	1, 403, 819	2, 878	37. 1	35. 8
1881	5, 400, 101	7, 958	2, 643, 899	2, 622	48. 9	32. 9
1882	5, 435, 444	9, 039	2, 581, 789	5, 016	47. 3	55. 5
1883	4, 531, 763	6, 991	2, 351, 190	5, 597	51. 8	80
1884	5, 669, 488	5, 530	3, 253, 984	3, 806	57. 4	68. 8
1885	5, 972, 689	8, 903	3, 189, 576	7, 289	53. 4	81. 8
1886	5, 918, 842	10, 577	2, 838, 263	8, 369	47. 9	79. 1
1887	6, 161, 737	11, 387	5, 049, 273	10, 714	65. 7	94
1888	6, 178, 855	13, 886	3, 982, 217	12, 954	64. 4	92. 6
1889	7, 147, 651	24, 975	5, 270, 250	24, 236	73. 7	97
1890	8, 165, 586	33, 851	6, 082, 825	29, 555	74. 4	87. 3
Total	76, 917, 800	189, 414	44, 655, 131	139, 929	.....	.....

In my last report I expressed the opinion that—

The action of Congress in passing the silver bill and the anticipated legislation imposing a tariff on lead ores imported from other countries has had a stimulating and beneficial effect, and it is probable the West is about to experience a revival of the mining industry on an extensive scale.

This has been more than verified. The present may be said to be a phenomenal period in the history of mining in Utah Territory. New

discoveries have been made in the old reliable mining camps of Park City, Tintic, and Bingham Cañon, and at Dugway, Fish Springs, La Plata and Ohio mining districts, and in other places. The figures given above show a marked increase in the mineral product. This increase will probably continue, unless there shall be adverse legislation by Congress, and will contribute very largely to the material prosperity of the Territory. The influence of the new discoveries, and of the increased product, is felt in every class of business, benefiting the producer and the consumer alike. A visit to Park City, Utah, the home of the Ontario mine, which has paid nearly \$12,000,000 in dividends, and will continue to pay them for many years to come, and of other dividend-paying mines, or to the Tintic mining district, also the home of many dividend-paying mines, will show to any one how vast are the interests involved, and also suggest how serious a blow it would be to the prosperity of the Territory and country if, because of unfriendly legislation or from any cause, mining could no longer be prosecuted with profit.

The persons engaged in the mining industry are among the most energetic, wide-awake, and enterprising men of the West. They are public-spirited and loyal always, and they confidently expect the important interests which they represent will receive due and equitable consideration at the hands of Congress.

SULPHUR.

The sulphur deposits of Utah are practically inexhaustible and of superior quality. The sulphur taken from the Cove Creek mines is said to be 98 per cent pure, and is deposited in such a way that it can be mined at very little expense. There are also deposits near Frisco, in Beaver County, and in other parts of the Territory. The pyrites which abound in the mining camps are said to be sufficient to produce all the sulphur and sulphuric acid required by the West. The Cove Creek mines are about to resume their output of sulphur in various marketable forms.

THE ASPHALTS OF UTAH.

The asphalts of Utah are not only the purest in the world, but are found also in literally inexhaustible quantities, single veins of which contain more asphalt than does the famous Pitch Lake of Trinidad.

The most notable deposits are in a location far from railroad transportation, and so it is made necessarily costly, but not so much so but that it competes successfully in the European markets for application in various industrial pursuits.

The large use of it as a paving material is yet to be made when facilities for its economical transportation shall have been provided. Then, Utah can easily supply the asphalt for the paving of all the streets in every American city, and continue to do so for a long period of time to come.

The comparative scarcity of asphalt in the civilized regions of the world has led to its being used for selected uses; but with Utah's vast deposits available other uses may be made of it. It can be distilled for gas, and oil of superior excellence; can be used as it was by the people of the ancient world as a cement for masonry construction with a probable special fitness for reservoirs and like applications.

MINERAL WAX.

The northeastern section of the Territory abounds in deposits of mineral wax or ozokerite, a solid hydrocarbon of great industrial value, which should contribute millions of dollars annually to our productions. The nature of the deposits so far discovered impose difficulties and expense of the mining of them which will doubtless soon be overcome. This mineral is by suitable treatment converted into gas, oil, a high grade paraffine, and a hard white wax. Every candle burned in Utah should be manufactured here, from the mineral wax of our mines.

COAL AND IRON.

The coal and iron interests of Utah have long since received national attention. The coal measures and iron-ore bodies exposed in the counties of Uintah, Summit, Wasatch, Emery, San Pete, Pi Ute, Garfield, Iron, and other counties show that nature seems to have done her utmost to give to Utah and the West an almost inexhaustible quality of coal and of iron ore, and to encourage the development in this Territory of vast industrial enterprises and populous communities. Much of this mineral wealth is locked up in the fastnesses of the mountains, but the steadily advancing march of progress is gradually giving them commercial importance, and in the near future they will lay the foundation of substantial and enduring prosperity.

There is said to be one coal vein in Utah 32 feet thick, and in Iron County there is a deposit of iron ore of superior quality, sufficient in quantity to meet the needs of the West for centuries, and close to this vast deposit are large veins of excellent coal.

STRUCTURAL MATERIALS.

Nearly every form and variety of marble is found in Utah. There is a form of fossil marble known as geodic marble, which is, for purposes of interior ornamentation, unsurpassed by any in the world, and beautiful and rare as it is the deposits are so vast as to be almost beyond comprehension. I can not here convey an idea of the beauty of this marble. In a polished surface of 1 foot square there may be a hundred geodes. The nucleus of the geodes vary in form and character. It may be a worm, a seed, a shell or twig, or any substance around which the concretion could gather. The concretion forms in concentric circles of varying shades of brown, the whole presenting a remarkably beautiful surface when polished. There are other marbles of rare beauty and in inexhaustible quantities.

SANDSTONES.

In every part of the Territory can be found deposits of sandstone. In Dry and Emigration Cañons, just east of Salt Lake City, the red sandstone cliffs rise for thousands of feet above the level of the valley. This stone is largely used in the foundations of the buildings erected in the Salt Lake Valley. The most valuable sandstones for commercial purposes are found on the line of the Rio Grande Western Railway Company, in the Spanish Fork and Price River Cañons. The brown sandstone found here is of good color, is easily worked, and is used in the erection of fronts in the better class of buildings. There is also found

here a dove-colored sandstone, known locally as the kyune stone. It has a very attractive appearance, and, like the brown, is very valuable and largely used. I am informed that both these sandstones are being exported, and the demand for them is growing.

GRANITE.

A few miles southeast of Salt Lake City the granite peaks rise nearly 9,000 feet above the level of the valley. At its base, in the Little Cottonwood Cañon, the ledge is about 5 miles wide. Enough boulders have rolled from off this mountain to build a thousand cities of the size of New York.

Probably this is the most extensive deposit of granite available in the western country. It is gray in color and is easily worked. The temple now being erected by the Mormons in Salt Lake City is being built with this granite. It is said it will eventually be largely used for paving material.

The above references are only briefly indicative of the extensive character of the wealth of Utah in this respect, as building materials of every kind and character are found all over the Territory.

The General Government, holding a paternal relation toward the people in its Territories, is looked to by them for fostering aid in the work of developing the Territory in many ways, and especially in matters beyond private control, as in the matter of undeveloped mineral deposits within the limits of our Indian reservations. Much land within these reservations is useless for either cultivation or grazing, while some of it is of immeasurable value for mining. When such circumstances are combined, the effect of the reservation is clearly that of restriction of the best interests of the Territory and its people, and without any advantage to anyone else. The early adoption of an Indian policy which will abolish the tribal organization of the Indians, and give them in severalty whatever land they can use, will be worth millions of dollars to the people of the Territory.

PUBLIC AND DENOMINATIONAL SCHOOLS.

Under the influence of the free-school law, which first went into operation at the beginning of the last school year, September, 1890, there has been a marked increase in the attendance of pupils and a visible improvement in the methods and manner of teaching.

There now seems to be a growing desire throughout the Territory to give these schools the support which they are entitled to. In Salt Lake City the schools have been crowded beyond their capacity, and the board of education has found it difficult to supply the needed room. To remedy this a special election was held and the citizens voted to bond the city in the sum of \$600,000 for the purpose of building and furnishing schoolhouses. This great interest in the cause of popular education is an encouraging feature and speaks well for the Territory and its people. One noticeable feature of the influence of the free-school law is the decline in the attendance at the non-Mormon denominational schools. By the tables published below it will be seen that, compared with 1890, there has been a decrease of 11.56 per cent.

The public schools and the cause of education are deserving of more extended notice at my hands, and would receive it but for the fact that under the provisions of the Edmunds-Tucker law the commissioner of

public schools appointed by the supreme court of the Territory is required to make a complete report respecting them to Congress.

In previous reports I have called attention to the action of the Mormon church authorities in establishing denomination schools throughout the Territory, and probably in the adjoining States and Territories.

The church has appointed a board of education, and, I am informed, the Territory has been divided into school districts, and it is only a question of time when the church schools will enter into competition with common schools. This action on the part of the Mormon church is wrong, as it would be on the part of any church. The work of the free public schools, which are the pride and strength of our country, ought not to be imperiled by denominational schools, which can only serve the purpose of narrowing the minds of those educated under their influence.

SCHOOLS AND CHURCHES.

Statement showing the number of schools established and maintained by religious denomination, excepting the Church of Jesus Christ of Latter-Day Saints, for the years 1890 and 1891.

Denomination.	1890.			1891.		
	Schools.	Teachers.	Pupils.	Schools.	Teachers.	Pupils.
Methodist	24	35	1,767	25	38	1,400
Protestant Episcopal	6	23	550	5	18	500
Catholic	7	40	800	6	50	800
Congregational	24	50	2,380	21	45	2,269
Swedish Lutheran	1	3	60	(*)	.....	.....
Baptist .....	.....	.....	.....	(*)	.....	.....
Presbyterian	32	61	2,250	31	61	1,935
Total	94	212	7,807	88	212	6,904

* No report, on account schools discontinued.

Statement showing the number of churches and ministers maintained by religious denominations, excepting the Church of Jesus Christ of Latter-Day Saints, for the years 1890 and 1891.

Denomination.	1890.		1891.	
	Churches.	Ministers.	Churches.	Ministers.
Methodist	28	23	33	26
Protestant Episcopal	8	7	8	7
Catholic	10	14	6	15
Congregational	5	8	5	8
Swedish Lutheran	5	4	6	4
Baptist	2	4	(*)	.....
Presbyterian	15	21	17	19
Total	73	81	75	79

* No report.

DENOMINATIONAL SCHOOLS.

Statement showing the amount expended for schools by the various religious denominations, excepting the Church of Jesus Christ of Latter-Day Saints, prior to June 30, 1890, and during 1891.

Denomination.	Expended for schools to June 30, 1890.	Expended maintaining schools, 1891.	Expended for school grounds and buildings, 1891.	Total expended for schools.
Methodist	\$324, 000	\$20, 600	\$5, 000	\$349, 600
Protestant Episcopal	(*)	15, 000	(*)	.....
Catholic	373, 000	40, 000	60, 000	473, 000
Congregational	341, 169	40, 000	5, 000	386, 169
Swedish Lutheran	16, 500	(†)	.....	.....
Baptist .....	(*)	(†)	.....	.....
Presbyterian	335, 000	29, 750	9, 500	374, 250
Total	1, 389, 669	145, 350	79, 500	1, 583, 019

* No report.

† Schools discontinued.

Statement showing the amount expended for churches by the various denominations, excepting the Church of Jesus Christ of Latter-Day Saints, prior to June 30th, 1890, and in 1891.

Denomination.	Expended for grounds and buildings and maintenance.		
	To June 30, 1890.	1891.	Total.
Methodist	\$178, 000	\$39, 500	\$217, 500
Protestant Episcopal	(*)	(*)	(*)
Catholic	103, 000	10, 000	113, 000
Congregational	20, 000	(*)	20, 000
Swedish Lutheran	32, 700	13, 200	45, 900
Baptist .....	(*)	(*)	.....
Presbyterian	61, 000	28, 700	89, 700
Total	394, 700	91, 400	486, 100

* No report.

BUSINESS PROSPERITY.

While the Territory is now in a very healthy condition, industrially, commercially, and financially, the degree of activity which existed last year does not prevail. It may be said that the speculative period has been followed by the more substantial methods which build up a country on a solid and lasting basis.

The great depression which exists in other commonwealths of the West is scarcely felt here. In the different cities and towns there has been a steady progress in the number of buildings erected and the promotion of industrial enterprises. It is quite likely there will be a steady advance for many years to come because of the large number of dividend paying mines and the certainty of obtaining remunerative crops from irrigated lands. There is another good reason why this should be so. The climate of Utah is unsurpassed by any in the West. We have as many clear days as any other part of our country and a bracing atmosphere. The extremes of temperature common to other portions are unknown here; consequently Utah has long been celebrated as the land of rich and grand mountains, fruitful and beautiful valleys, and a fine climate.

Every person who visits Utah, on business or pleasure, goes away her friend.

UTAH SUGAR MANUFACTORY.

On the border line of Lehi and American Fork cities, in Utah County, Utah, there has been erected what is said to be the largest sugar manufactory in the United States, and equipped with machinery of American manufacture, at a cost of some \$500,000. It was built by a corporation formed under the laws of Utah. The stock is owned by citizens of Utah. The sugar will be manufactured from the beet root. The soil of Utah in some places is said to be especially adapted to the cultivation of the sugar beet.

If the enterprise shall prove successful, and there seems to be no doubt of it, it will prove a valuable aid to the business interests of the Territory, and will be an effective object lesson of the value of home industries.

Statement showing the number of residences and business buildings erected or under contract for erection in the cities and towns for the year ending June 30, 1891.

	Dwell-ings.	Value.	Business houses.	Value.
<i>Cities incorporated under special charters.</i>				
American Fork	17	\$10,600	7	\$19,300
Alpine	2	2,000		
Beaver	3	1,200	1	1,500
Brigham City	24	26,500	4	25,900
Cedar City	6	5,000	1	2,000
Coalville	14	6,950	2	4,500
Corinne			2	1,500
Ephraim	8	10,800	3	2,200
Fairview	8	5,000	2	800
Fillmore	None		1	350
Grantsville	1	1,000		
Hyrum	3	1,500	4	4,000
Kaysville	12	9,600	4	13,000
Lehi	15	7,800	5	5,050
Logan	70	95,000	11	50,000
Manti	6	3,500	3	6,500
Mendon	None	None	3	2,000
Moroni	4	2,000	1	2,000
Mount Pleasant	12	16,000	2	4,000
Morgan	9	7,000	5	12,000
Ogden	590	634,840	52	813,524
Park City	75	50,000	3	12,000
Parowan	1	500	1	700
Payson	10	8,000	10	15,000
Pleasant Grove	7	8,000	5	10,000
Provo	40	120,000	9	115,000
Richfield	2	1,000	3	7,000
Richmond	None		1	600
Salt Lake City	971	1,349,759	126	2,131,001
Smithfield	14	10,000	1	1,000
Spanish Fork *	10	8,200	2	21,000
Spring City	16	6,000	2	2,000
Springville	45	70,600	4	23,000
St. George	8	7,600	1	1,000
Tooele	4	2,000	1	600
Wellsville	3	3,000		
Willard	3	3,000	1	1,000
<i>Cities and towns incorporated under general laws.</i>				
Bear River	2	900	1	1,400
Monroe	8	3,000	5	5,000
Fountain Green †				
Heber	1	500	1	1,500
Kanab	2	3,000	2	3,000
Nephi	28	43,195	7	12,450
Salem	5	925	1	520
Total	2,059	2,545,469	300	3,334,995

* One district school; value, \$6,000. † No report.

The following cities are lighted by electricity : Salt Lake, Ogden, Provo, Park City, Payson, and Logan.

Salt Lake has $1\frac{1}{2}$ miles electric railway. Provo, 6 miles motor street railroad, and Ogden has changed its extensive street-car system from horse to electric power.

BANK STATEMENT.

Statements have been received as follows from the following-named banks, showing state of their business June 30, 1891:

Name.	Capital.		Deposits.	
	1890.	1891.	1890.	1891.
Brigham City:				
Bank of Brigham *		\$25,000.00		\$61,275.48
Branch Ogden, Utah, Loan and Trust Co.				
Corinne: J. W. Guthrie	\$50,000.00	55,000.00	\$21,800.00	20,000.00
Kaysville: Barnes Banking Co. *		25,000.00		25,367.15
Logan: Thatcher Brothers Banking Co.	100,000.00	150,000.00	231,415.00	162,821.21
Manti: Manti City Savings Bank *		25,000.00		78,396.07
Nephi:				
First National Bank *	50,000.00	80,000.00	212,960.91	117,861.24
Nephi Savings Bank and Trust Co. *		50,000.00		43,184.46
Ogden:				
Commercial National Bank	250,000.00	150,000.00	390,744.58	230,000.00
First National Bank	150,000.00	75,000.00	603,003.00	191,295.00
Utah National Bank	100,000.00	200,000.00	535,000.00	325,000.00
Citizens' Bank *		145,290.00		113,364.52
Ogden State Bank	103,750.00	138,000.00	160,557.31	105,000.00
Ogden Savings Bank	57,780.00	75,000.00	134,885.70	177,365.41
Utah Loan and Trust Company's Bank *		200,000.00		91,033.30
Park City: Park City Bank	30,000.00	50,000.00	102,578.56	88,127.06
Payson: Payson Exchange and Savings Bank	25,000.00	25,000.00	10,988.37	26,443.14
Provo:				
First National Bank	50,000.00	50,000.00	175,000.00	57,503.47
National Bank of Commerce *		53,654.28		27,230.96
Provo Commercial and Savings Bank	75,000.00	75,000.00	50,645.80	68,066.00
Utah County Savings Bank	30,000.00	50,000.00	58,672.39	52,553.67
Richfield: James M. Petersen *		20,000.00		22,660.65
Salt Lake City:				
American National Bank		265,000.00		296,222.54
Commercial National Bank	250,000.00	330,000.00	330,000.00	334,469.82
Deseret National Bank	250,000.00	500,000.00	1,625,311.79	841,073.00
National Bank of the Republic †	500,000.00	505,000.00		331,488.44
Union National Bank	400,000.00	440,000.00	1,586,570.99	908,834.17
Bank of Commerce		100,000.00		162,948.89
State Bank of Utah	500,000.00	500,000.00	178,010.09	250,286.31
Deseret Savings Bank	100,000.00	100,000.00	506,491.24	424,941.23
Zion's Savings Bank and Trust Co.	100,000.00	127,287.50	911,193.57	927,596.46
Salt Lake Valley Loan and Trust Co. †				
Utah Title Insurance and Trust Co. Savings Bank †	160,000.00	160,000.00		77,725.64
Wells, Fargo & Co. §	200,000.00	200,000.00	1,484,574.67	1,324,940.63
W. S. McCorninck & Co. †				
T. R. Jones & Co. †				
Utah Commercial and Savings Bank	200,000.00	200,000.00	300,502.66	240,272.00
Utah National Bank	200,000.00	200,000.00	81,686.47	150,236.47
Total	1,500,000.00	5,148,231.78	9,572,286.45	8,355,684.39

* New bank.

† Opened for business after July 1, 1890.

‡ No report.

§ Wells, Fargo & Co.: This is Salt Lake branch of Wells, Fargo & Co., San Francisco. It has no capital, but draws on the parent bank. The \$200,000 given is surplus.

THE LABOR SUPPLY.

The number of men belonging to the trades unions in Salt Lake City and Ogden is as follows:

Salt Lake:	
Members of trades unions, federated	2,350
Members of trades unions, not federated	1,250
Trades labor men not members of trades unions, about	1,320
Ogden:	
Members of trades unions, federated	840
Members of trades unions, not federated	475
Members of trades unions outside of Salt Lake and Ogden	2,450
Total	8,685

The supply of skilled laborers in some of the trades is slightly in excess of the demand.

WAGES PAID AND HOURS EMPLOYED.

The following statement will show the rate of wages paid for certain kinds of labor and the hours employed:

Name of trades.	Wages per month.		Wages per week.	Wages per day.	Hours employed.
Bricklayer				\$5.00 to \$6.00	8
Brickmakers				2.50 3.00	9
Blacksmiths				3.50 4.00	9
Brewers	\$65.00 to \$70.00				10
Barbers			\$15.00 to \$20.00		10
Boot and shoemakers				2.75 3.00	10
Clerks	60.00	100.00			10
Cooks and waiters	40.00	75.00			10
Carpenters				3.50 4.00	10
Cigar-makers			20.00 25.00		9
Harness-makers				2.25 2.75	9
Hod-carriers				3.00 3.50	8
Iron molders				3.00 3.50	9
Lathers				3.00 3.50	9
Laborers				2.00 2.50	9
Linemen				3.00 3.50	8
Machinists				3.50 4.00	9
Printers			20.00 25.00		9
Plumbers				4.00 4.50	8
Painters				3.50 4.00	9
Plasterers				4.00 4.50	8
Stonecutters				4.00 4.50	8
Stone masons				4.00 4.50	8
Steam and gas fitters				4.00 4.50	8
Street-car employes				2.00	9
Tinners and cornice-makers				3.50 4.00	9

THE RAILROAD SYSTEM.

The railroad system of Utah is herewith given:

Road.	From—	To—	Miles of line.	
			Gauge, 4 feet 8½ inches.	Gauge, 3 feet.
Union Pacific:				
Main line in Utah	Ogden	Wyoming line	73	.....
Salt Lake and Western	do	Frisco	280	.....
Echo and Park City	Lehi City	Eureka	62	.....
Utah and Northern	Echo	Park City	31	.....
Utah and Nevada	Ogden	Idaho line	96.3	.....
San Pete Valley	Salt Lake City	Terminus		37
	Nephi	do		34
Total			542.3	71
Rio Grande Western:				
Main line	Colorado line	Ogden	310.1	.....
Bingham branch	Bingham Junction	Bingham	16.3	.....
Alta branch	do	Alta	18.2	.....
Pleasant Valley	Pleasant Valley Junction	Coal mines	17.3	.....
Coal Mines			6.1	.....
Springville		Payson	9.1	.....
Total			377.1	.....
Central Pacific in Utah:				
Ogden main line	Ogden	Nevada line	157	.....
Total			157	.....
Utah Central	Salt Lake	Fort Douglas		6
	do	Park City		31
	do	Mill Creek		3
Total				40
Grand total			1,076.4	111

Street-railroad system.

	Electric.	Steam motor.
	<i>Miles.</i>	<i>Miles.</i>
Salt Lake	60½	9
Ogden	6	6
Provo		
Total	66½	15

Increase in railroad mileage, standard gauge, 110.4 miles Decrease, narrow gauge, 76 miles.

Statements showing the tonnage shipped over the railroads in Utah for the year ending June 30, 1890, as reported by the companies.

UNION PACIFIC RAILWAY.

Articles.	Tons.	Articles.	Tons.
Alfalfa seed	1, 056, 505	Lumber	206, 501, 467
Beer	9, 730, 106	Machinery implements	21, 576, 105
Building material	96, 901, 301	Marble	112, 845
Bullion	11, 092, 639	Merchandise	96, 475, 196
Brick	17, 830, 915	Oil	6, 831, 978
Brick, fire and clay	463, 650	Ore and matte	385, 036, 183
Coal	548, 291, 240	Plaster	6, 249, 353
Coke	3, 152, 755	Poultry	42, 631
Eggs	1, 378, 558	Posts	4, 884, 142
Fruit, dried	903, 234	Railway material	16, 711, 433
Fruit, green, and vegetables	12, 803, 913	Salt	104, 128, 757
Flour and mill stuff	27, 844, 797	Sand	460, 000
Furniture	2, 463, 290	Slag	13, 171, 748
Grain	54, 935, 639	Sulphur	526, 090
Groceries	33, 937, 221	Sundries	28, 913, 077
Granite rock	14, 373, 980	Stone	41, 261, 578
Hardware	10, 620, 481	Ties	12, 286, 035
Hay and straw	18, 201, 105	Vehicles	1, 228, 806
Iron pipe	2, 764, 478	Wood	8, 242, 800
Junk	4, 307, 639	Wool and hides	16, 502, 076
Lead	2, 647, 840	Water	7, 390, 707
Limestone	47, 859, 861		
Live stock	23, 821, 612	Total	1, 929, 695, 766

Increase in pounds over 1890, 148 per cent.

RIO GRANDE WESTERN RAILWAY.

Articles.	Tons.	Articles.	Tons.
Products of agriculture:		Products of mines—Continued.	
Grain	6, 252	Coke and charcoal	29, 191
Flour	1, 173	Products of forests:	
Other mill products	737	Lumber	40, 428
Fruits and vegetables	8, 767	Manufactures:	
Hay	2, 475	Petroleum and oils	4, 094
Canned goods	4, 219	Sugar	8, 078
Products of animals:		Castings and machinery	7, 825
Dressed meats	1, 852	Bar and sheet metal	2, 886
Other packing-house products	3, 190	Cement, brick, and lime	18, 320
Wool	1, 562	Agricultural implements	1, 282
Hides and leather	580	Wagons and carriages	2, 933
Live stock	5, 525	Wines, liquors, and beers	3, 468
Products of mines:		Household goods and furniture	3, 778
Anthracite coal	13, 017	Iron and steel nails	4, 569
Bituminous	225, 325	Merchandise	48, 032
Ores	65, 724	Miscellaneous	8, 906
Stone, sand, and clay	38, 403		
Bullion	6, 618	Total tonnage	569, 209

Increase in pounds over 1890, 48.81 per cent.

Movement of freight traffic in Territory of Utah during year ending December 31, 1890.

SOUTHERN PACIFIC COMPANY.

Classification.	Received.	Forwarded.
<i>Received at and forwarded from Ogden.</i>		
	<i>Tons.</i>	<i>Tons.</i>
Merchandise.....	66,170	127,145
Hay and grain.....	5,150	1,793
Fruits and vegetables.....	89,482	7,664
Live stock.....	2,400	495
Dressed meat.....	10	9,672
Stone.....	453	648
Brick.....	200	405
Pig iron.....		72
Lumber and wooden material.....	40,393	13,932
Coal.....	223	148,478
Coke and charcoal.....		699
Ore.....	13,624	1,052
Total.....	218,105	312,055
<i>Forwarded from points other than Ogden.</i>		
Merchandise.....		237
Hay.....		451
Grain.....		278
Potatoes.....		11
Mill stuff.....		10
Live stock.....		1,337
Hides.....		121
Wool.....		184
Ore.....		27
Salt.....		114
Brick.....		200
Ice.....		62
Lumber, etc.....		34
Total.....		3,066

List of companies organized and incorporated in Utah Territory and filed in the office of the secretary thereof during the year ending July 1, 1891.

MINING COMPANIES.

	No. of shares.	Par value of capital stock.
Alamo Mining Co.....	125,000	\$620,000
American Mining and Development Co.....	20,000	100,000
Ashley Coal, Asphalt and Gilsonite Co.....	1,400	140,000
Australian Russell Process Co.....	2,500	250,000
Bee-Hive Reservoir Coal and Mining Co.....	30,000	1,500,000
Buckhorn Gold and Silver Mining Co.....	100,000	1,000,000
Buffalo Gold and Silver Mining Co.....	300,000	1,500,000
Busby Mining Co.....	10,000	500,000
Biddlecome Mining and Melting Co.....	400,000	400,000
Buffalo Bill Mining Co.....	400,000	400,000
Corego Mining Co.....	300,000	3,000,000
Cosmos Mining, Land and Investment Co.....	400,000	2,000,000
Cleveland Consolidated Mining Co.....	125,000	125,000
Dalter Gold Mining and Milling Co.....	500,000	2,500,000
Diamond Consolidated Mining Co.....	200,000	1,000,000
Dixie Mining and Smelting Co.....	125,000	125,000
Emery County Coal Co.....	100,000	5,000,000
Elizabeth Consolidated Gold and Smelting Mining Co.....	1,500	150,000
Greeley Mining Co.....	500,000	2,500,000
Golden Breeze Mining and Milling Co.....	300,000	1,500,000
Gold Shoup Gravel and Quartz Mining Co.....	250,000	2,500,000
Gold Mineral Mining Co.....	100,000	1,000,000
High Creek Mining and Milling Co.....	200	20,000
Lucky Hill Mining Co.....	500,000	500,000
Lackawawa Coal Co.....	250,000	250,000
Mammoth Hill Mining Co.....	100,000	1,000,000
Modoc Chief Mining Co.....	200,000	1,000,000
Mears Silver Mining Co.....	400,000	10,000,000
Mammoth, No. 2. Mining and Milling Co.....	200,000	2,000,000
North Eureka Mining Co.....	100,000	300,000
Nelson Consolidated Milling and Mining Co.....	100,000	1,000,000

List of companies organized and incorporated in Utah Territory, etc.—Continued.

MINING COMPANIES—Continued.

	No. of shares.	Par value of capital stock.
Nabob Mining Co	200,000	\$1,000,000
Ophir Hill Mining and Concentrating Co	1,000	25,000
Old Jordan and Salina Mining Co	20,000	2,000,000
Passadena Mining Co	1,000,000	1,000,000
Pioneer Mining and Milling Co	100,000	100,000
Peruvian Consolidated Mining Co	150,000	150,000
Paxman Mining Co	100,000	500,000
Pioche Consolidated Mining and Reduction Co	2,000,000	20,000,000
Resolute Mining Co	100,000	1,000,000
Sevier Mining and Milling Co	250,000	1,250,000
St. George Mining and Milling Co	100,000	1,000,000
Salvator Mining Co	100,000	1,000,000
Salina Gold and Silver Mining Co	400,000	2,000,000
Salt Lake Asphalt Co	10,000	100,000
Silver King Mining Co	50,000	500,000
Southwestern Coal and Iron Co	200,000	10,000,000
Salt Lake Improvement Co	10,000	1,000,000
Stanley Mining Co	300,000	3,000,000
Scandinavian Coal Co	20,000	1,000,000
Sioux Consolidated Mining Co	100,000	1,000,000
Snow Flake Mining Co	100,000	500,000
The Trapper Mining Co	100,000	1,000,000
Trinity Consolidated Gold and Silver Mining Co	1,500	150,000
Tintic Mining and Milling Co	700,000	700,000
Union Pacific Mining Co	125,000	1,250,000
Willard Silver Bill Mining Co	20,000	200,000
Total capitalization		94,305,000

MANUFACTURING COMPANIES.

Central Contract Building Co	2,000	\$20,000
Consolidated Lumber and Milling Co	500	50,000
Cooper Pyper & Co	400	10,000
Central Milling and Elevator Co	450	45,000
Farmington Commission and Manufacturing Co	5,000	50,000
Foote Refrigerator and Mantel Manufacturing Co	2,500	25,000
Fillmore Dairy Co	5,000	5,000
Geo. Q. Cannon & Son	10,000	100,000
Heesch & Eilerbeck Electric Co	500	50,000
Jeremy Salt Co	10,000	100,000
Layton Milling and Elevator Co	500	50,000
Lehi Mill and Stock Co	4,000	40,000
Northwestern Construction Co	400	20,000
Ogden Cracker Co	1,000	10,000
Pacific Paving Co	1,000	100,000
Richville Milling Co	50,000	50,000
Sun Foundry and Machine Co	20,000	200,000
Standard Combination Fence Co	400	10,000
Salt Lake Pressed Brick Co	50	50,000
Utah Mining and Irrigation Pump Manufacturing Co	15,000	150,000
Utah Manufacturing and Building Co	2,000	200,000
Utah Mattress and Manufacturing Co	300	30,000
Total capitalization		1,365,000

List of companies organized and incorporated in Utah Territory, and filed in the office of the secretary thereof, during the year ending July 31, 1891.

LAND, STOCK, AND WATER COMPANIES.

	No. of shares.	Par value of capital stock.
Alturas Land and Irrigation Co.....	5,000	\$500,000
Buffalo Park Land Co.....	5,000	500,000
Carlton Town Lot and Resort Co.....	7,500	75,000
Deseret Live Stock Co.....	9,000	90,000
East Canyon Water Co.....	1,000	5,000
Marble, Land, and Irrigation Co.....	250,000	500,000
Oquirrh Water and Land Co.....	4,000	400,000
Roscoe Stock Co.....	500	50,000
Swan Lake Reservoir and Canal Co.....	750,000	750,000
Utah Water Co.....	30,000	3,000,000
Total capitalization.....		5,870,000

MERCANTILE COMPANIES.

The Arbogast Confectionery Co.....	2,000	\$50,000
Adams & Son's Co.....	5,000	50,000
American Investment Co.....	1,000	100,000
Barton & Co.....	500	50,000
Barnes, Lewis & Co.....	1,200	30,000
Blythe-Nease Mercantile Co.....	2,500	25,000
Croyden Sandstone Co.....	5,000	50,000
Central Progress Co.....	7,500	75,000
Central Utah Wool Co.....	1,000	10,000
David James & Co.....	5,000	50,000
Deseret Investment Co.....	2,000	200,000
Earl's Furniture and Carpet Co.....	1,000	100,000
Eclipse Grocery and Fruit Co.....	500	50,000
Eagle Cracker Manufacturing Co.....	2,500	25,000
Reed Furniture and Carpet Co.....	600	30,000
The Fair.....	1,000	50,000
F. Platt Co.....	500	50,000
Godbe Mercantile Co.....	5,000	50,000
Gates-Snow Furniture Co.....	500	50,000
Henry Dinwoodey Furniture Co.....	2,000	200,000
Hudson-Hadley Mining and Milling Co.....	200,000	2,000,000
Hardy-Young Co.....	1,200	120,000
Kaysville Coöperative Mercantile Co.....	3,000	30,000
Lynne Mercantile Co.....	500	50,000
London Tailoring Co.....	1,500	15,000
Midgley & Sons Co.....	5,000	50,000
Mill Creek Lumber and Building Co.....	2,000	20,000
Metropolitan Stone Co.....	100,000	100,000
Mountain Stone Co.....	50,000	50,000
Mason & Co.....	1,500	150,000
Ogden Lumber and Building Co.....	500	50,000
Parker & Depew.....	500	50,000
Price Trading Co.....	400	40,000
Pacific Lumber and Building Co.....	15,000	150,000
Rowe, Morris, Summer Bag Co.....	650	65,000
Strong Brothers Co.....	1,000	10,000
Sells Lime, Cement and Rock Co.....	100,000	100,000
Sears & Liddell Co.....	1,000	50,000
Smoot Drug Co.....	75	7,500
Salt Lake Free Stone Co.....	50,000	500,000
Sears & Jeremy Co.....	5,000	50,000
Taylor Brothers.....	5,000	50,000
Utah Book and Stationery Co.....	1,000	50,000
Utah Plumbing and Supply Co.....	100,000	100,000
Utah Canning Co.....	500	50,000
A. H. Wright, Son & Co.....	1,000	100,000
Women's Coöperative Mercantile and Manufacturing Institution.....	1,000	5,000
W. P. Noble Mercantile Co.....	1,000	50,000
Washington Rock Co.....	200	20,000
Wasatch Stone Co.....	5,000	10,000
Taylorville Coöperative Mercantile and Manufacturing Association.....	5,000	10,000
Total capitalization.....		5,397,000

List of companies organized and incorporated in Utah Territory, etc.—Continued.

BANKS.

	No. of shares.	Par value of capital stock.
Bank of Commerce.....	1,000	\$100,000
Burnes Banking Co.....	500	25,000
Citizens' Bank, Ogden, Utah.....	2,000	200,000
Manti City Savings Bank.....	500	25,000
Park City Bank.....	500	50,000
Total capitalization.....		400,000

MISCELLANEOUS CORPORATIONS.

American Hotel and Improvement Co.....	200	\$20,000
American National Gas Co.....	500,000	4,000,000
Brigham Young Trust Co.....	5,000	500,000
City Theater Co.....	100	10,000
Central Hotel Co.....	500	50,000
Citizens' Building and Loan Association.....	10,000	100,000
Dooly Block.....	2,000	200,000
Empire Steam Laundry Co.....	2,500	25,000
Eureka Gas Saving Co.....	2,500	25,000
Farnum Building Co.....	1,200	30,000
Gurney Cab and Delivery Co.....	5,000	50,000
Green River Consolidated Oil Co.....	100,000	1,000,000
Home Saving and Building Association.....	50,000	5,000,000
Iowa and Utah Fruit Co.....	200	10,000
Junction City Driving Park Association.....	500	50,000
Jennings Bros. Investment Co.....	3,000	300,000
Logan Building and Benefit Society.....	10,000	1,000,000
Miller-Windsor Co.....	10,000	100,000
McCormick Building Co.....	3,000	300,000
Ogden Driving Park and Fair Association.....	800	20,000
Ogden Club.....	200	20,000
Ogden Steam Laundry Co.....	120	12,000
Odd Fellows Building Association.....	4,000	40,000
Provo Lake Resort Co.....	1,000	50,000
Pioneer Library Association.....	4,000	100,000
Parley's Park Scenic Resort Co.....	300	15,000
Riter Bros. Drug Co.....	500	50,000
Saltair Beach Co.....	2,500	250,000
Trades Union Building Co.....	5,000	500,000
Times Publishing Co.....	300	30,000
Tribune Job Printing Co.....	300	30,000
Utah Slaughtering Co.....	1,500	150,000
Union Publishing Co.....	5,000	50,000
Utah County Troy Steam Laundry Co.....	200	10,000
Utah Gas Co.....	200,000	200,000
Utah Oil Co.....	100,000	1,000,000
Western Bill Posting Co.....	500	5,000
Western Light and Fuel Co.....	100,000	1,000,000
Wasatch Driving Park and Fair Association.....	200	5,000
Total capitalization.....		15,802,000

Statements showing the production of wheat, oats, rye, barley, corn, potatoes, beets, hay, lucerne, orchard fruits, vineyards, vegetables, cotton, wool, butter, cheese, dried fruits, honey, vinegar, sorghum, wine, and cider, as reported by the county assessors.

WHEAT.

[80 cents per bushel.]

Counties.	Acres.	Bushels.	Average number of bushels to acre.	Standing, in order of production.	Standing, in order of yield per acre.	Value.
Beaver.....	1,756	32,291	18	10	19	\$25,832.80
Box Elder.....	9,445	144,128	15	13	6	115,302.40
Cache.....	27,083	517,131	19	9	1	413,704.80
Davis.....	11,309	179,021	16	12	5	143,216.80
Emery.....	2,577	59,107	23	6	9	47,285.60
Garfield.....	801	17,159	21	8	21	13,727.20
Grand.....	32	363	11	14	25	290.40
Iron.....	1,469	43,317	29	2	13	34,653.60
Juab.....	1,793	40,977	23	6	15	32,781.60
Kane.....	205	5,306	26	3	23	4,244.80
Millard.....	2,309	50,120	22	7	10	40,096.00
Morgan.....	1,444	35,655	25	4	18	28,524.00
Pi Ute.....	2,510	42,631	17	11	14	34,104.80
Rich.....	651	16,069	25	4	22	12,855.20
Salt Lake.....	7,077	184,846	26	3	4	147,876.80
San Juan.....	67	1,292	19	9	24	1,033.60
San Pete.....	12,051	311,606	26	3	2	249,284.80
Savier.....	4,550	109,970	24	5	8	87,976.00
Summit.....	1,833	44,149	24	5	12	35,319.20
Tooele.....	1,548	39,059	24	4	17	31,247.20
Uintah.....	1,871	40,650	22	7	16	32,520.00
Utah.....	8,777	304,010	35	1	3	243,208.00
Washington.....	1,176	26,338	22	7	20	21,070.40
Weber.....	5,199	114,899	22	7	7	91,879.20
Wasatch.....	2,581	49,410	19	9	11	39,528.00
Total.....	110,114	2,409,454	22	.....	.....	1,927,563.20

OATS.

[47 cents per bushel.]

Beaver.....	896	22,493	25	19	15	\$10,571.71
Box Elder.....	787	39,666	50	12	1	18,643.02
Cache.....	3,856	104,791	27	4	14	49,251.77
Davis.....	553	23,222	42	18	4	10,914.34
Emery.....	1,783	58,120	33	6	9	27,316.40
Garfield.....	459	10,008	22	21	16	4,703.76
Grand.....	8	270	34	25	8	126.90
Iron.....	650	27,144	42	15	4	12,757.68
Juab.....	398	11,153	28	20	13	5,241.91
Kane.....	143	3,564	25	24	15	1,675.08
Millard.....	796	26,716	34	16	8	12,556.52
Morgan.....	731	23,334	32	17	10	10,966.98
Pi Ute.....	1,800	56,261	31	7	11	26,442.67
Rich.....	1,303	54,200	42	8	4	25,474.00
Salt Lake.....	1,639	47,842	29	10	12	22,485.74
San Juan.....	143	3,400	27	23	14	1,833.00
San Pete.....	3,398	120,906	36	2	7	56,825.82
Savier.....	2,952	118,045	40	3	5	55,481.15
Summit.....	1,488	51,392	34	9	8	24,154.24
Tooele.....	716	31,594	44	14	2	14,849.18
Unitah.....	1,400	35,225	25	13	15	16,555.75
Utah.....	3,120	132,846	43	1	3	62,437.62
Washington.....	150	5,045	34	22	8	2,371.15
Weber.....	2,149	84,091	39	5	6	39,522.77
Wasatch.....	1,445	40,390	28	11	13	18,983.30
Total.....	32,763	1,132,218	34	.....	.....	532,142.46

Statements showing the production of wheat, oats, rye, etc.—Continued.

RYE.

[61 cents per bushel.]

Counties.	Acres.	Bushels.	Average number of bushels to acre.	Standing, in order of produc- tion.	Standing, in order of yield per acre.	Value.
Beaver.....	13	136	10	14	8	\$82.96
Box Elder.....	1,377	13,775	10	1	8	8,402.75
Cache.....	431	3,162	7	7	10	1,928.82
Davis.....	32	204	6	12	11	124.44
Juab.....	318	3,630	11	6	7	2,214.30
Kane.....	62	662	10	10	8	403.82
Millard.....	184	5,664	31	2	1	3,455.04
Pi Ute.....	3	5	2	17	12	3.05
Rich.....	13	182	14	13	5	111.02
Salt Lake.....	550	3,680	7	5	10	2,244.80
San Pete.....	240	4,880	20	4	3	2,976.80
Sevier.....	34	498	15	11	4	303.78
Summit.....	5	103	20	15	3	62.83
Tooele.....	54	748	14	9	5	456.28
Uintah.....	2	26	13	16	6	15.86
Utah.....	203	5,640	28	3	2	3,440.40
Weber.....	238	2,209	9	8	9	1,347.49
Total.....	3,759	45,204	12	-----	-----	27,574.44

BARLEY.

[50 cents per bushel.]

Beaver.....	39	1,160	30	16	8	\$580.00
Box Elder.....	302	5,405	18	13	16	2,702.50
Cache.....	304	7,107	23	10	13	3,553.50
Davis.....	1,626	40,097	25	2	11	20,048.50
Garfield.....	14	734	52	20	1	367.00
Grand.....	15	346	23	23	13	173.00
Iron.....	314	8,365	27	7	10	4,182.50
Juab.....	302	11,604	38	6	4	5,802.00
Kane.....	25	798	32	19	7	399.00
Millard.....	155	4,972	32	14	7	2,486.00
Morgan.....	180	5,872	32	11	7	2,936.00
Pi Ute.....	18	187	10	24	17	93.50
Rich.....	30	908	30	17	8	454.00
Salt Lake.....	885	18,538	20	3	15	9,269.00
San Juan.....	29	409	20	22	15	204.50
San Pete.....	129	5,679	44	12	2	2,839.50
Sevier.....	210	7,854	37	9	5	3,927.00
Summit.....	18	593	33	21	6	296.50
Tooele.....	361	13,190	37	5	5	6,595.00
Uintah.....	73	1,598	22	15	14	799.00
Utah.....	1,221	49,795	40	1	3	24,897.50
Washington.....	325	8,112	25	8	11	4,056.00
Weber.....	763	18,390	24	4	12	9,195.00
Wasatch.....	29	833	29	18	9	416.50
Total.....	7,358	212,546	29	-----	-----	106,273.00

Statements showing the production of wheat, oats, rye, etc.—Continued.

CORN.

[72 cents per bushel.]

Counties.	Acres.	Bushels.	Average number of bushels to acre.	Standing in order of production.	Standing in order of yield per acre.	Value.
Beaver	89	870	10	20	15	\$626.40
Box Elder	523	9,305	18	6	8	6,699.60
Cache	489	12,842	26	5	3	9,246.24
Davis	328	6,610	20	8	6	4,759.20
Emery	669	13,007	19	4	7	9,365.04
Garfield	154	1,911	13	18	13	1,375.92
Grand	370	6,070	16	-----	10	4,370.40
Iron	391	3,745	10	13	15	2,696.40
Juab	180	2,495	14	16	12	1,796.40
Kane	115	3,705	32	14	1	2,667.60
Millard	148	1,275	9	19	66	918.00
Pi Ute	168	2,471	15	17	11	1,779.12
Salt Lake	731	15,051	21	2	5	10,836.72
San Juan	100	2,920	29	15	2	2,102.40
San Pete	9	121	13	21	13	87.12
Sevier	168	4,023	24	12	4	2,896.56
Tooele	363	6,890	19	7	7	4,960.80
Uintah	498	6,105	12	9	14	4,395.60
Utah	2,273	46,658	20	1	6	33,593.76
Washington	300	5,153	17	11	9	3,710.16
Weber	717	13,840	19	3	7	9,964.80
Total	8,776	165,067	19	-----	-----	118,848.24

POTATOES.

[53 cents per bushel.]

Beaver	248	20,059	81	9	18	\$10,631.27
Box Elder	320	38,577	120	7	4	20,445.81
Cache	784	83,434	106	4	11	44,220.02
Davis	308	38,320	124	8	3	20,309.60
Emery	119	13,491	113	15	8	7,150.23
Garfield	56	4,530	81	22	18	2,400.90
Grand	8	931	116	25	6	493.43
Iron	200	10,143	51	18	23	5,375.79
Juab	98	8,631	88	19	16	4,574.43
Kane	66	3,428	52	23	22	1,816.84
Millard	112	8,300	74	20	20	4,399.00
Morgan	360	42,998	119	5	5	22,788.94
Pi Ute	131	12,126	92	17	14	6,426.78
Rich	112	12,797	114	16	7	6,782.41
Salt Lake	865	117,956	136	2	2	62,516.68
San Juan	14	1,282	91	24	15	679.46
San Pete	533	40,650	76	6	19	21,544.50
Sevier	206	19,290	93	10	13	10,223.70
Summit	164	18,129	110	11	10	9,606.78
Tooele	137	14,397	105	14	12	7,630.41
Uintah	130	17,794	136	12	2	9,430.82
Utah	1,683	283,784	168	1	1	150,405.52
Washington	70	5,107	73	21	21	2,706.71
Weber	910	102,107	112	3	9	54,116.71
Wasatch	211	17,616	83	13	17	9,336.48
Total	7,845	935,874	119	-----	-----	496,013.22

Statements showing the production of wheat, oats, rye, etc.—Continued.

BEETS.

[35 cents per bushel.]

Counties.	Acres.	Bushels.	Average number of bushels to acre.	Standing in order of production.	Standing in order of yield per acre.	Value.
Box Elder	575	1,119	194	5	6	\$391.65
Cache	525	2,152	410	3	2	753.20
Davis	325	1,018	313	6	4	356.30
Juab	225	55	24	10	11	19.25
Kane	50	54	108	11	8	18.90
Millard	25	6	24	14	11	2.10
Morgan	25	50	200	12	5	17.50
Salt Lake	2,100	8,054	383	1	3	2,818.90
San Pete	200	62	31	9	10	21.70
Tooele	125	170	136	8	7	59.50
Uintah	125	714	571	7	1	249.90
Utah	2,250	1,982	88	4	9	693.70
Washington	200	37	18	13	12	12.45
Weber	2,000	6,253	313	2	4	2,188.55
Total	8,750	21,726	248	-----	-----	7,604.10

HAY.

[\$13.58 per ton.]

Counties.	Acres.	Tons.	Average number of tons to acre.	Standing in order of production.	Standing in order of yield per acre.	Value.
Beaver	1,504	2,419	1.60	14	8	\$32,850.02
Box Elder	5,910	8,756	1.48	6	11	118,906.48
Cache	12,560	17,522	1.39	1	15	237,948.76
Davis	3,130	6,284	2.00	8	25	85,336.72
Emery	883	760	0.86	19	5	10,320.80
Garfield	550	1,204	2.27	17	4	16,350.32
Grand	90	157	1.74	25	7	2,132.06
Iron	469	682	1.45	20	12	9,261.56
Juab	2,388	2,545	1.06	13	23	34,561.10
Kane	234	321	1.37	22	16	4,259.18
Millard	248	381	1.54	21	9	5,173.98
Morgan	574	1,841	3.20	15	1	25,000.78
Pi Ute	1,796	1,735	0.97	16	24	23,551.70
Rich	11,730	12,588	1.07	4	21	170,945.04
Salt Lake	3,245	9,507	2.93	5	2	129,105.06
San Juan	302	305	1.01	20	23	4,141.10
San Pete	7,165	8,056	1.12	7	20	109,400.48
Sevier	2,767	3,345	1.21	11	18	45,425.10
Summit	9,236	13,783	1.49	3	10	187,173.14
Tooele	1,906	2,727	1.43	12	13	37,032.66
Uintah	861	981	1.14	18	19	13,321.98
Utah	7,539	14,661	1.94	2	6	199,096.78
Washington	169	228	1.35	24	17	3,096.24
Weber	1,690	4,521	2.68	10	3	61,395.18
Wasatch	3,721	5,263	1.41	9	14	71,471.54
Total	80,647	120,572	1.49	-----	-----	1,637,367.76

Statements showing the production of wheat, oats, rye, etc.—Continued.

LUCERNE.

[\$8.87 per ton.]

Counties.	Acres.	Tons.	Average number of tons to acre.	Standing in order of production.	Standing in order of yield per acre.	Value.
Beaver	1,694	3,807	2.25	19	22	\$33,768.09
Box Elder	7,036	11,605	1.65	9	24	102,936.35
Cache	7,902	23,217	2.94	5	11	205,934.79
Davis	8,421	19,374	2.30	6	21	171,847.28
Emery	4,708	28,260	6.00	4	1	250,666.20
Grand	577	2,129	3.69	21	3	18,884.23
Iron	1,314	3,800	2.89	20	13	33,706.00
Juab	2,687	7,038	2.62	13	16	62,427.06
Kane	331	1,048	3.16	23	8	9,295.76
Millard	1,868	9,217	4.93	11	2	81,754.79
Morgan	2,338	7,772	3.32	12	7	68,937.64
Pi Ute	1,084	2,043	1.88	22	23	18,121.41
Rich	1,518	4,251	2.80	18	14	37,706.37
Salt Lake	13,119	43,854	3.34	2	6	388,984.98
San Juan	137	331	2.41	24	20	2,935.97
San Pete	7,039	17,908	2.54	7	17	158,843.96
Sevier	4,455	12,314	2.76	8	15	109,225.18
Summit	1,742	5,883	3.38	16	5	52,182.21
Tooele	2,480	6,016	2.42	15	19	53,361.92
Uintah	3,156	9,271	2.93	10	12	82,233.77
Utah	14,320	45,021	3.14	1	9	399,336.27
Washington	1,406	4,963	3.53	17	4	44,021.81
Weber	9,715	30,390	3.13	3	10	269,559.30
Wasatch	2,682	6,588	2.46	14	18	58,435.56
Total	101,729	306,100	3.00	.....	.....	2,715,107.00

ORCHARDS.

[2½ cents per pound]

Counties.	Acres.	Pounds.	Average number of pounds to acre.	Standing in order of production.	Standing in order of yield per acre.	Value.
Beaver	78	7,740	99	16	18	\$193.50
Box Elder	556	331,975	597	7	10	8,299.37
Cache	285	668,025	2,344	4	4	16,700.63
Davis	464	736,940	1,588	3	6	18,423.50
Emery	86	30,110	350	11	13	752.75
Garfield	31	26,620	859	13	7	665.50
Grand	61	29,840	489	12	12	746.00
Iron	535	.....	.....	.....	.....	.....
Juab	133	489,375	3,679	5	2	12,234.37
Kane	44	354,520	8,057	6	1	8,863.00
Millard	159	53,500	337	9	14	1,337.50
Morgan	7	5,565	795	18	8	139.12
Pi Ute	69	7,400	107	17	17	185.00
Salt Lake	417	320,353	768	8	9	8,008.83
San Juan	19	11,200	590	14	11	280.00
Tooele	116	38,700	334	10	15	967.50
Uintah	76	8,879	117	15	16	221.98
Utah	1,299	3,004,850	2,313	1	5	75,121.25
Weber	840	2,120,470	2,525	2	3	53,011.75
Total	5,275	8,246,062	1,563	.....	.....	206,151.55

Statements showing the production of wheat, oats, rye, etc.—Continued.

VINEYARDS.

[6 cents per pound.]

Counties.	Acres.	Pounds.	Average number of pounds to acre.	Standing in order of production.	Standing in order of yield per acre.	Value.
Box Elder	8	10, 125	1, 265	8	10	\$607. 50
Davis.....	16	26, 775	1, 673	5	6	1, 606. 50
Emery.....	15	9, 000	600	10	13	540. 00
Grand.....	17	28, 500	1, 676	4	5	1, 710. 00
Juab.....	1	1, 300	1, 300	12	9	78. 00
Kane.....	8	18, 060	2, 258	6	3	1, 083. 60
Pi Ute.....	1	1, 000	1, 000	13	12	60. 00
Salt Lake.....	8	9, 360	1, 170	9	11	561. 60
San Juan.....	2	3, 000	1, 500	11	7	180. 00
Tooele.....	7	14, 700	2, 100	7	4	882. 00
Uintah.....	2	1, 000	500	14	14	60. 00
Utah.....	117	153, 490	1, 312	2	8	9, 209. 40
Washington.....	50	200, 000	4, 000	1	2	12, 000. 00
Weber.....	13	89, 250	6, 865	3	1	5, 355. 00
Total	265	565, 560	2, 174	.....	.....	33, 933. 60

AGRICULTURAL AND OTHER VEGETABLE PRODUCTS.

[3 cents per pound.]

Beaver.....	114	144, 195	1, 265	7	15	\$4, 328. 85
Box Elder	107	837, 500	7, 827	5	4	25, 125. 00
Cache.....	75	974, 690	12, 996	4	2	29, 240. 70
Davis.....	616	8, 403, 730	13, 642	1	1	252, 111. 90
Emery.....	22	41, 650	1, 893	17	13	1, 249. 50
Grand.....	16	31, 825	1, 989	18	12	954. 75
Juab.....	10	88, 282	8, 828	12	3	2, 648. 46
Kane.....	7	49, 700	7, 100	16	5	1, 491. 00
Millard.....	9	6, 800	756	19	18	20. 40
Pi Ute.....	130	128, 300	987	8	17	3, 849. 00
Rich.....	27	102, 750	3, 805	10	8	3, 082. 50
Salt Lake.....	108	251, 120	2, 325	6	11	7, 533. 60
San Juab.....	6	1, 380	230	20	20	41. 40
San Pete.....	200	75, 000	375	14	19	2, 250. 00
Sevier.....	36	84, 050	2, 335	13	10	2, 521. 50
Summit.....	22	123, 470	5, 612	9	7	3, 704. 10
Tooele.....	79	97, 044	1, 229	11	16	2, 911. 32
Uintah.....	41	63, 000	1, 536	15	14	1, 890. 00
Utah.....	567	3, 782, 405	6, 670	2	6	113, 472. 15
Weber.....	405	1, 401, 950	3, 461	3	9	42, 058. 50
Total	2, 597	16, 688, 841	6, 426	.....	.....	500, 665. 23

Statements showing the production of wheat, oats, rye, etc.—Continued.

WINE AND CIDER.

[Wine, 90 cents per gallon; cider, 35 cents per gallon.]

Counties.	Wine.			Cider.		
	Gallons.	Standing in order of production.	Value.	Gallons.	Standing in order of production.	Value.
Beaver.....				25	13	\$8.75
Box Elder.....	314	7	\$282.60	420	7	147.00
Cache.....	1,028	4	925.20	726	5	254.10
Davis.....	196	8	176.40	565	6	197.75
Emery.....	20	14	18.00			
Grand.....	1,056	3	950.40			
Juab.....	82	10	73.80	375	8	131.25
Kane.....	150	9	135.00	137	10	47.95
Millard.....				31	12	10.85
Morgan.....						.10
Rich.....				10		
Salt Lake.....	73	11	65.70	3,550	3	1,242.50
San Juan.....				10		
San Pete.....				1,952	4	683.20
Summit.....	20	13	18.00			
Tooele.....	930	5	837.00	200	9	70.00
Utah.....	3,520	2	3,168.00	49,637	1	17,372.95
Washington.....	23,987	1	21,588.30	100	11	35.00
Weber.....	480	6	432.00	3,650	2	1,277.50
Wasatch.....	30	12	27.00			
Total.....	31,886		28,697.40	61,368		21,478.80

COTTON.

[11 cents per pound.]

County.	Acres.	Pounds.	Average number of pounds to acre.	Value.
Washington.....	7	4,200	600	\$462.00

WOOL.

[16½ cents per pound.]

Counties.	Pounds.	Standing in order of product.	Value.
Beaver.....	196,993	10 or 13	\$32,503.84
Box Elder.....	243,670	10	40,205.55
Cache.....	6,302	23	1,039.83
Davis.....	36,785	20	6,069.53
Emery.....	590,550	5	97,440.75
Garfield.....	88,940	16	14,675.10
Grand.....	15	25	2.84
Iron.....	933,400	2	154,011.00
Juab.....	664,737	4	109,681.60
Kane.....	456,356	6	75,298.74
Millard.....	230,122	11	37,970.13
Morgan.....	22,211	21	3,664.82
Pi Ute.....	132,225	14	21,817.12
Rich.....	1,100	24	165.00
Salt Lake.....	889,017	3	146,687.81
San Juan.....	41,010	19	6,765.00
San Pete.....	1,477,968	1	243,864.22
Sevier.....	325,805	8	53,757.82
Summit.....	19,983	22	3,297.20
Tooele.....	395,239	7	65,214.43
Uintah.....	245,466	9	40,501.89
Utah.....	228,588	12	37,717.02
Washington.....	54,000	18	8,910.00
Weber.....	113,268	15	18,689.22
Wasatch.....	57,612	17	9,505.98
Total.....	7,451,252		1,229,456.58

Statements showing the production of wheat, oats, rye, etc.—Continued.

BUTTER AND CHEESE.

[Butter, 17½ cents per pound; cheese, 15 cents per pound.]

Counties.	Butter.			Cheese.		
	Pounds.	Standing in order of pro- duction.	Value.	Pounds.	Standing in order of pro- duction.	Value.
Beaver.....	28,023	17	\$4,904.03	120	23	\$18.00
Box Elder.....	77,422	8	13,548.85	14,662	5	2,199.30
Cache.....	238,275	2	41,698.12	56,016	2	8,402.40
Davis.....	161,543	5	28,270.03	225	20	33.75
Emery.....	37,470	13	6,557.25	1,500	14	225.00
Garfield.....	14,137	22	2,473.98	58,625	1	8,793.00
Grand.....	2,430	25	425.25	630	18	97.00
Iron.....	20,940	20	3,664.50	26,820	4	4,023.00
Juab.....	39,429	12	6,900.07	125	22	18.75
Kane.....	17,192	22	3,008.60	8,730	9	1,309.50
Millard.....	28,822	16	5,043.85	125	22	18.75
Morgan.....	45,495	11	7,961.63	3,530	10	529.50
Pi Ute.....	29,600	14	5,180.00	27,720	3	4,158.00
Rich.....	29,405	15	5,145.87	660	17	99.00
Salt Lake.....	201,894	4	35,331.45			
San Juan.....	2,824	24	493.50	1,080	16	162.00
San Pete.....	155,400	6	27,195.00	2,000	13	300.00
Sevier.....	50,200	9	8,785.00	13,960	6	2,094.00
Summit.....	93,381	7	16,341.68	2,225	12	333.75
Tooele.....	19,330	21	3,382.75	150	21	22.50
Uintah.....	25,360	18	4,438.00	320	19	48.00
Utah.....	206,149	3	36,076.07	10,372	8	1,555.80
Washington.....	23,760	19	4,158.00	3,500	11	525.00
Weber.....	249,970	1	43,744.75	13,580	7	2,037.00
Wasatch.....	49,000	10	8,575.00	1,200	15	180.00
Total.....	1,877,447		323,303.24	247,875		37,181.25

DRIED APRICOTS, PLUMS, AND PEARS.

[Apricots, 12½ cents per pound; plums, 12½ cents per pound; pears, 10 cents per pound.]

Counties.	Dried apricots.			Dried plums.			Dried pears.		
	Pounds.	Standing in order of pro- duction.	Value.	Pounds.	Standing in order of pro- duction.	Value.	Pounds.	Standing in order of pro- duction.	Value.
Box Elder.....	50	5	\$6.25	480	5	\$60.00	50	7	\$5.00
Davis.....	75	3	9.38	415	6	51.88	75	6	7.50
Garfield.....				125	10	15.63	7,200	1	720.00
Juab.....							100	5	10.00
Kane.....				220	8	27.50			
Millard.....				170	9	21.25			
Pi Ute.....				300	7	37.50			
Salt Lake.....	25	6	3.12	1,539	2	192.37	1,404	2	140.40
San Juan.....				25	14	3.12			
San Pete.....				65	12	8.13			
Tooele.....	100	2	12.50	100	11	12.50	100	5	10.00
Uintah.....				30	13	3.75			
Utah.....	55	4	6.88	757	4	94.63	292	4	29.20
Washington.....	11,590	1	1,448.75	855	3	106.87			
Weber.....				1,650	1	206.25	700	3	70.00
Total.....	11,895		1,486.88	6,731		841.38	9,921		992.10

Statements showing the production of wheat, oats, rye, etc.—Continued.

DRIED APPLES AND PEACHES.

[Apples, 6 cents per pound; peaches, 11 cents per pound.]

Counties.	Dried apples.			Dried peaches.		
	Pounds.	Standing in order of production.	Value.	Pounds.	Standing in order of production.	Value.
Box Elder.....	3,202	10	\$192.12	7,738	2	\$851.18
Cache.....	29,911	2	1,794.66			
Davis.....	8,650	8	519.00	2,726	4	299.86
Emery.....	100	17	6.00	50	14	5.50
Garfield.....	140	16	8.40	625	9	68.75
Grand.....				1,902	6	909.22
Iron.....	500	12	30.00			
Juab.....	12,079	6	724.74			
Kane.....	5,820	9	349.20	426	10	46.86
Millard.....	2,018	11	121.08			
Pi Ute.....	400	14	24.00	400	11	44.00
Salt Lake.....	11,989	7	719.34	1,524	7	167.64
San Juan.....				380	12	41.80
San Pete.....	18,173	4	1,090.38	100	13	11.00
Sevier.....	350	15	21.00			
Tooele.....	462	13	27.72	800	8	88.00
Utah.....	68,922	1	4,135.32	3,638	3	400.18
Washington.....	13,276	5	796.56	156,284	1	17,191.24
Weber.....	21,175	3	1,270.50	2,000	5	220.00
Total.....	197,167		11,830.02	178,593		19,645.23

BEEES AND HONEY.

[Hives, \$7 each; honey, 9 cents per pound.]

Counties.	Hives of bees.			Honey.		
	Number.	Standing in order of number.	Value.	Pounds.	Standing in order of production.	Value.
Beaver.....	37	19	\$259.00	1,655	19	\$148.95
Box Elder.....	580	10	4,060.00	12,433	13	1,118.97
Cache.....	2,431	2	17,017.00	78,552	3	7,069.68
Davis.....	2,125	4	14,875.00	81,875	2	7,368.75
Emery.....	935	7	6,545.00	42,720	7	3,844.80
Grand.....	68	18	476.00	3,870	17	348.30
Iron.....	536	11	3,759.00	23,269	10	2,094.21
Juab.....	701	9	4,907.00	26,015	9	2,341.35
Kane.....	262	15	1,834.00	19,732	11	1,775.88
Millard.....	70	17	490.00	2,553	18	229.77
Morgan.....	235	16	1,645.00	5,170	16	465.30
Pi Ute.....	14	21	98.00	158	22	14.22
Salt Lake.....	1,953	5	13,671.00	67,978	4	6,118.02
San Juan.....	15	20	105.00	1,460	20	131.40
San Pete.....	1,623	6	11,361.00	54,381	6	4,894.29
Sevier.....	845	8	5,915.00	28,305	8	2,547.45
Summit.....	4	22	28.00			
Tooele.....	272	14	1,904.00	7,054	15	634.86
Uintah.....	409	12	2,863.00	17,940	12	1,614.60
Utah.....	4,699	1	32,893.00	311,009	1	27,990.81
Washington.....	351	13	2,457.00	7,308	14	657.72
Weber.....	2,137	3	14,959.00	59,750	5	5,377.50
Wasatch.....	68	18	476.00	1,200	21	108.00
Total.....	20,371		142,597.00	854,387		76,894.83

Statements showing the production of wheat, oats, rye, etc.—Continued

VINEGAR AND SORGHUM.

[Vinegar, 25 cents per gallon; sorghum, 65 cents per gallon.]

Counties.	Vinegar.			Sorghum.		
	Gallons.	Standing in order of pro- duction.	Value.	Gallons.	Standing in order of pro- duction.	Value.
Beaver	159	13	\$39.75			
Box Elder	1,103	6	275.75	980	10	\$635.00
Cache	465	7	116.25	13,726	1	8,921.90
Davis	3,098	3	774.50	7,073	1	4,597.45
Emery	25	17	6.25	500	15	325.00
Garfield				40	19	26.00
Grand	260	10	65.00	790	13	513.50
Juab	213	12	53.25	574	14	375.10
Kane	105	16	26.25	100	18	65.00
Millard	108	15	27.00	3,120	6	2,028.00
Pi Ute	460	8	115.00	3,678	5	2,390.70
Salt Lake	1,525	4	381.25	3,062	7	1,990.30
San Juan				910	11	591.50
San Pete	1,250	5	312.50	1,700	9	1,105.00
Sevier	405	9	101.25	265	17	172.25
Tooele	120	14	30.00	807	12	524.55
Uintah	218	11	54.50	276	16	179.40
Utah	9,653	1	2,413.25	1,470	4	4,205.50
Washington	260	10	65.00	10,549	2	6,856.85
Weber	8,480	2	2,120.00	2,980	8	1,937.00
Total	27,907		6,976.75	57,600		37,440.00

Industrial and commercial statement by counties for the year ending December 31, 1890.

Counties.	Expended for private buildings.	Expended for public buildings.
Beaver	\$11,050	\$800
Box Elder	53,450	7,500
Cache	143,640	32,350
Davis	74,766	14,125
Emery	56,425	8,350
Iron	11,400	4,500
Juab	86,495	30,123
Kane	7,130	2,000
Morgan	7,009	
Pi Ute	7,700	450
Rich	14,750	2,350
Salt Lake	5,826.451	
San Pete	67,300	15,400
Sevier	33,125	15,325
Summit	49,900	500
Uintah	13,375	1,000
Utah	406,321	220,050
Weber	1,481,645	87,000
Washington	15,400	
Wabsatch	18,000	7,100
Total	8,385,323	448,923

Industrial and commercial statement by counties, etc.—Continued.

INDUSTRIAL CONCERNS.

Counties.	Number operat- ing in 1890.	Hands em- ployed.	Wages paid.	Value of plant.	Value of raw material.	Value of annual product.	Horse- power em- ployed.	Capital invested.
Beaver	8	64	\$23,688	\$35,930	\$17,150	\$13,764	135	\$47,600
Box Elder	5	15	5,700	22,950	25,000	75,888	.....	30,100
Cache	14	85	28,670	146,900	190,800	260,020	509	165,900
Davis	14	211	82,700	40,200	311,075	247,300	244	74,000
Emery	7	496	451,755	233,000	69,000	502,050	85	223,500
Garfield	10	24	4,982	3,270	3,775	8,900	35	4,175
Grand	1	1	.....	500	.....	.....	16	500
Iron	4	27	14,175	38,800	4,040	31,400	.....	54,540
Juab	19	121	60,341	110,850	1,122,252	270,360	268	91,375
Kane	3	16	3,370	5,200	5,998	14,298	46	5,500
Millard	1	2	333	10,000	6,483	8,012	35	10,000
Morgan .....	.....	10	2,200	2,900	36,000	19,600	20	6,400
Pi Ute	11	26	3,900	10,500	21,450	23,380	122	47,500
Rich	4	17	2,000	11,250	26,300	32,300	80	18,250
Salt Lake	88	1,512	883,177	1,701,500	939,417	2,485,875	.....	2,082,915
San Pete	34	331	76,330	52,825	84,595	258,135	683	78,050
Sevier	5	7	3,460	22,000	52,200	6,120	124	24,000
Summit	8	162	75,986	260,466	24,200	103,886	197	189,066
Tooele	5	30	1,300	21,800	.....	60,000	45	36,500
Utah	23	317	38,134	244,830	259,920	374,821	371	501,480
Weber	33	405	269,800	531,400	337,200	189,300	990	539,400
Washington	8	79	18,800	62,000	7,000	151,000	125	106,000
Total	305	3,908	2,050,801	3,569,071	3,533,855	6,366,409	4,130	4,336,751

STORES.

Counties.	Num- ber.	Capital in- vested.	Amount of annual sales.	Number of em- ployés.	Wages paid.
Beaver	26	\$97,485	\$271,534	29	\$15,280
Box Elder	38	127,770	407,800	55	23,705
Cache	60	666,007	1,265,653	173	87,636
Davis	40	133,267	320,840	45	20,430
Emery	34	152,339	381,971	61	28,840
Garfield	6	31,300	54,000	13	4,380
Grand	2	1,500	6,000	1	500
Iron	11	41,832	92,500	19	5,633
Juab	53	231,827	1,194,838	89	42,130
Kane	7	26,426	63,000	11	4,660
Millard	24	50,630	125,500	33	10,035
Morgan	9	29,000	67,500	13	5,575
Pi Ute	16	20,220	74,800	11	3,350
Rich	7	8,515	35,000	6	1,680
Salt Lake	876	14,702,078	29,794,370	5,667	3,819,232
San Juan	4	6,000	17,800	7	2,520
San Pete	80	233,838	783,295	140	58,350
Sevier	23	60,000	212,210	40	12,600
Summit	43	327,220	872,548	76	63,768
Tooele	19	47,475	160,150	18	9,800
Utah	112	689,250	2,141,660	288	142,572
Weber	186	2,174,300	6,909,715	827	467,470
Washington	20	87,900	233,400	33	16,675
Wahsatch	13	66,960	143,600	14	7,800
Total	1,709	20,013,139	45,629,684	7,669	4,854,641

Statement showing the amount of coal mined in Utah, 1890.

County.	Locality.	No. of mines.	No. of hands employed.	Wages paid annually.	Value of plant.	Amount of annual product.			
						Lump.	Slack.	Nut.	Cake.
						<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Emery	Castle Gate...	1	200	\$150,000	\$150,000	92,422	25,641	.....	8,394
Emery	Scofield	2	235	186,255	70,000	174,649	27,233	.....	.....
Summit	Coalville.....	1	139	64,996	250,000	27,733	.....	8,173	.....
Total.....	.....	4	574	401,251	470,351	294,804	52,874	8,173	8,394

County.	Locality.	Value of annual product at mines.	Horse-power employed.	Character of horse-power.	Capital invested.
Emery	Castle Gate	\$173,527	250	Steam	\$200,000
Emery	Scofield	335,756	40	do	215,000
Summit.....	Coalville	63,236	140	do	175,000
Total .....	.....	572,519	430	.....	590,000

Statement showing the amount of salt produced by evaporation of the waters of Great Salt Lake during the year 1890, as reported by the persons manufacturing it.

	1891.	1890.
	<i>Tons.</i>	<i>Tons.</i>
Adams & Kiesel Salt Co., Syracuse	20,000	15,000
Dcseret Salt Co., Farmington.....	10,000	9,051
Jeremy & Co., North Point.....	13,000	10,000
Gwilliam Bros., Hooper.....	7,000	6,000
A. H. Nelson, Brigham City	(*)	2,500
People's Forwarding Co., Lake Shore.....	8,000	6,000
Inland Salt Co., Saltair	90,000	40,000
Total	148,000	88,551

* Discontinued for this year.

The increase in the production over 1890 is 78.44 per cent.

PISCICULTURE.

Two million five hundred thousand shad fry were sent to the Territory in 1891, and put into the Bear River and the Bear and Mud Lakes. The shad fry put into the Jordon River and Utah Lake in 1887-'88 will soon be ready for the market.

LEGISLATIVE REAPPORTIONMENT.

I went to Washington City in January last, and presented to the Judiciary Committee of the Senate statistical tables showing the gross injustice done to the rapidly growing portions of the Territory by the existing apportionment. This apportionment was made in 1887, and was based upon the estimated population of the counties at that time. The census of 1890 showed very clearly the necessity for the reapportionment. The Judiciary Committee sent to the Senate Committee on Appropriations an amendment providing for a reapportionment, with a recommendation that it be placed in the legislative and executive and judicial appropriation bill, which was done, and it passed both Houses and became a law. Under the authority given by the law the Utah Commission met as a board of apportionment and reapportioned the Territory.

It is but just to the Commission to say that the work was done in a careful and conscientious manner and with a due regard for the interests of all. I do not think there is on the statute books of any State or Territory of the Union a fairer apportionment.

THE POLITICAL SITUATION.

DELEGATE ELECTION.

At the election for Delegate to Congress held November 4, 1890, John T. Caine, the candidate of the People's party received 16,353 votes; Charles C. Goodwin, the candidate of the Liberal party, 6,912 votes, and 28 votes were cast for other persons. The contest was a most aggressive one. For the first time the Liberals made an effort to reach the Mormon voters in the outlying counties. Political mass meetings were held which were well attended, and considerable enthusiasm manifested. The Mormon people made special efforts to poll a large vote against Judge Goodwin because of the conspicuous part he has taken as a leader of the Liberal party during the past 10 years, and increased their vote 3,428 over the Delegate election of 1888. The vote polled for Judge Goodwin was the largest ever cast for a candidate of the Liberal party, or for any non-Mormon candidate. The Mormon majority was 9,411.

OGDEN MUNICIPAL ELECTION.

A municipal election was held in Ogden in February last. The contest was between the candidates of the Liberal party and the candidates of a combination formed between the People's party and a number of dissatisfied Liberals called the Citizens' party, and resulted in the election of the Citizens' candidate, a non-Mormon, by 15 majority. The Liberals elected the other city officers and a majority of the city council.

ELECTION OF THE LEGISLATIVE ASSEMBLY.

On August 3 last elections were held for members of the legislative assembly, and for Territorial, county, and precinct officers. This was in some respects the most important election ever held in the Territory. Previous to the election the People's party had formally disbanded and its members commenced to unite with Republican and Democratic organizations formed throughout the Territory. Tickets were nominated by Liberal, Republican, and Democratic conventions, and after an exciting and interesting campaign the election resulted in the Democrats carrying the Territory, on the basis of the votes cast for the members of the House, by 6,413 majority over the Liberals, and 7,022 majority over the Republicans, 374 votes less than the combined Liberal and Republican vote. On the vote for members of the legislative council the Democratic majority was 6,958 over the Liberals and 7,972 over the Republicans, or 561 plurality.

The election returns can not be regarded as reliable so far as the strength of the parties is concerned. In about one-half the Territory the Republicans had effected no organization, and in some of the legislative districts had no tickets at the polls. The Liberal vote polled was larger than at any previous election despite the defection of Liberals who had joined the Republican and Democratic parties. In the county elec-

tions the Liberals carried Salt Lake, Summit, Juab, and Grand counties by decisive majorities. In the former Liberal county of Weber the Democratic ticket was elected, but the combined Liberal and Republican vote was 279 in excess of the Democratic vote.

POLYGAMY.

In my report of September 9, 1890, I discussed at some length the statements which had been put forth to the effect that the Mormon Church had refused some time previous thereto to sanction polygamous marriages, and, referring to the unsatisfactory character of the evidence furnished, said:

Under its system of government the church has but one way of defining its position, and that is by a public declaration either from the head of the church addressed to the people or by the action of the people in conference assembled. No such declaration has ever been made nor action taken, and probably never will be. There is no reason to believe that any earthly power can extort from the church any such declaration.

It may be truthfully said that the church has determined that if polygamy is to be uprooted the Government must perform the task, as it will never do on its part any act that will indicate an abandonment of polygamy.

My opinion was based upon the course of the Mormon people in the past. I do not think there is anything in their history up to the date of the report which would have justified any one in saying they had abandoned a practice which they declared to be a vital part of their religion in the following emphatic language:

Among the principles of our religion is that of immediate revelations from God. One of the doctrines so revealed is celestial or plural marriage, for which ostensibly we are stigmatized and hated. This is a vital part of our religion, the decisions of courts to the contrary notwithstanding.

I accepted this as being a correct statement of their position. It was only corroborative of the opinion which it seems to me every man would have formed who had studied their history. I believed they were sincere in supporting polygamy, and would remain so, and said so.

On September 25, 1890, sixteen days after I filed my report, the president of the church issued the following proclamation or manifesto:

To whom it may concern:

Press dispatches having been sent for political purposes from Salt Lake City, which have been widely published, to the effect that the Utah Commission, in their recent report to the Secretary of the Interior, allege that plural marriages are still being solemnized, and that 40 or more such marriages have been contracted in Utah since last June or during the past year; also that in public discourses the leaders of the church have taught, encouraged, and urged the continuance of the practice of polygamy:

I, therefore, as president of the Church of Jesus Christ of Latter Day Saints, do hereby, in the most solemn manner, declare that these charges are false. We are not teaching polygamy, or plural marriage, nor permitting any person to enter into its practice, and I deny that either 40 or any number of plural marriages have during that period been solemnized in our temples or in any other place in the Territory.

One case has been reported, in which the parties alleged that the marriage was performed in the endowment house, in Salt Lake City, in the spring of 1889, but I have not been able to learn who performed the ceremony; whatever was done in the matter was without my knowledge. In consequence of this alleged occurrence the endowment house was, by my instructions, taken down without delay.

Inasmuch as laws have been enacted by Congress forbidding plural marriages, which laws have been pronounced constitutional by the court of last resort, I hereby declare my intention to submit to those laws, and to use my influence with the members of the church over which I preside to have them do likewise.

There is nothing in my teachings to the church or in those of my associates, during the time specified, which can be reasonably construed to inculcate or encour-

age polygamy, and when any elder of the church has used language which appeared to convey any such teaching he has been promptly reproved, and I now publicly declare that my advice to the Latter Day Saints is to refrain from contracting any marriage forbidden by the laws of the land.

WILFORD WOODRUFF,
President of the Church of Jesus Christ of Latter Day Saints.

And on October 6, 1890, twenty-seven days after, at the general conference of the church, on motion of Lorenzo Snow, an apostle of the church, the action of the president was indorsed, and the manifesto accepted by the people in the following language:

I move that, recognizing Wilford Woodruff as the president of the Church of Jesus Christ of Latter Day Saints, and the only man on the earth at the present time who holds the keys of the sealing ordinances, we consider him fully authorized by virtue of his position to issue the manifesto which has been read in our hearing and which is dated September 24, 1890, and that, as a church in general conference assembled, we accept his declaration concerning plural marriage as authoritative and binding.

The unexpected had happened, and the president and people had taken action in the most authoritative way. This was an event which can not fail to vitally affect the future of the Territory. The addresses made to the people at the time the proclamation was ratified should be read in connection with the proclamation in order to understand the force of this action in prescribing a rule of conduct to the Mormon people. It is generally known that the doctrine of polygamy rested on a supposed revelation to Joseph Smith, the founder of the sect, and so long as this revelation remained unrevoked and not suspended, to the orthodox Mormon it was superior to any human laws in conflict with its scope and meaning, and while he might submit to the force of a conflicting law, he never could give it more than a passive obedience.

This proclamation, in the proceedings of the conference, is not called a revelation, and, perhaps, it is not considered as strictly such, but it is distinctly asserted it is put forth by permission of the Lord, granted in answer to prayer on the subject, and by the only man on earth who holds the keys of the sealing power. Whether it is put forth as a command from the Lord or only as permissive I have no doubt that, as they have been led to believe it was put forth by divine sanction, it will be received by the members of the Mormon Church as an authoritative rule of conduct, and that, in effect, the practice of polygamy is formally renounced by the people.

At the general conference October 6, 1891, action was taken reaffirming the action of October 6, 1890, with respect to polygamy. The action of the Mormon people has not wholly removed doubts in the minds of some as to its sincerity or finality, and it is urged that it is not a revelation, but is revocable, and with the power and opportunity given it would be revoked; that it does not advise obedience, but only submission. When the Mormon people declared at a general gathering that polygamy was a vital part of their religion I accepted their action as a sincere expression of their views. Now that they have in the same public way resolved to refrain from violating the law prohibiting polygamy in the future, I think their action should be regarded as sincere until there is good reason for thinking otherwise. Every non-Mormon has believed the time must come when polygamy would be renounced. No one believed it could perpetually withstand the power of the law, the influence of the age, and comparison with its surroundings, and there is nothing strange in believing the time has come for the fulfillment of this expectation.

The only danger which threatens the situation is the possibility of immediate statehood, which I have discussed elsewhere.

POLITICAL ACTION.

While in every other portion of the country the people have united with some one of the great national parties, the Mormon people of Utah, from the date of their first settlement in the Territory on July 24, 1847, down to the present year, have had their own political organization, and have acted as a unit in political matters. They neither acknowledged nor professed allegiance to any national political party.

The non-Mormons of the Territory, while identifying themselves with national parties, have acted as a unit in local political matters, and the contests of the past have been Mormon *vs.* non-Mormon. This anomalous political condition was produced by extraordinary causes which were entirely new in our country and not easily to be removed.

The Mormon people throughout all their strange and eventful history have been taught by their leaders (the high priests of the church) that it was their religious duty to act as a unit in all matters temporal and spiritual; that such a course was necessary to their safety, and that division would place them at the mercy of their enemies, the non-Mormons; that if they remained united they would undoubtedly triumph over their enemies and become the ruling power in the land politically and otherwise. This dream of power has undoubtedly controlled them in all their actions in Utah down to the present time.

The non-Mormons have yielded their political convictions in local matters that they might more effectually combat what they believed to be an attempt to establish in Utah, and ultimately throughout the country, a system of government unknown to the Constitution and the laws, and foreign to the genius and spirit of our institutions.

On these sharply defined lines the contest has been waged during all these years without any indication of a change. Of course it has been the hope and belief of every citizen during the long contest that each succeeding year would witness a change, and that under the influence of a changed policy and happier conditions the people would gradually bring the Territory into harmony with the laws and institutions of the nation.

During the present year there has been unusual political activity. On February 22, 1891, the Ogden Daily Standard, a paper published in the interests of the Mormon people, announced in a leading editorial that it would hereafter be published in the interests of the Republican party. On February 16, 1891, a mass meeting of Republicans of Weber County was held at Ogden City, in which Mormons and non-Mormons participated, and a declaration of principles was adopted which favored a protective tariff, reciprocity, the support of the common schools, pensions to Union soldiers, free and unlimited coinage of American silver, and the following general declarations:

We affirm our unswerving allegiance and loyal devotion to the national Constitution and the indissoluble union of the States.

We believe in the supreme and lawful right of every lawful citizen, rich or poor, native or foreign born, white or black, to cast one free ballot at public elections, and have the ballot honestly counted.

In support of these principles we solicit the coöperation of all patriotic citizens who are willing to accept them as their confession of political faith, without regard to color, nativity, previous condition, religious belief, or past political affiliation.

A committee was appointed to prepare an address to the people of the Territory, urging the organization of the Republican party in Utah. The address was issued, and, briefly stated, claimed that the Republican party was the result of Democratic aggressions and misrule, and

of a determination that slavery should not be extended in the United States. It then proceeds to arraign the Democratic party as a party having but one principle, expressed in but one word, "policy," and declares that the Republican party "is a party of advanced thought, of patriotism, and courage."

On February 21, 1891, a mass meeting of Democrats was held at Ogden City, in which both elements of the population participated. A declaration of principles was adopted which, among other things, recites:

We, the Democracy of Weber County, in mass convention assembled, hereby declare that, in our judgment, it is now proper and expedient that the Democratic party of Weber County should be more efficiently organized for the furtherance of the principles and doctrines of the party in the government of the county and its municipalities, and of the Territory and the nation.

They also declared in favor of freedom from class legislation, individual liberty, against interference by the church with the affairs of state, or by the state with the church, against the "force bill," for revenue reform, and against free trade, and in favor of the free coinage of silver.

On May 5, 1891, the Salt Lake City Democratic Club adopted an address to the people of Utah, which contained the usual declarations made in a Democratic platform, and further declared:

Believing as we do that the changed as well as the rapidly changing conditions in social and political status of this Territory justify the abandonment of the political organizations which have heretofore existed, and that the time has now arrived when the political parties of the Territory should be formed upon the lines of national politics, leaving each individual citizen to choose for himself his affiliation with one or the other of the two great political parties of the country, according to his preference, and confident of the virtue, patriotism, and integrity of the mass of the people, we most cordially invite the people of Utah, without regard to previous political affiliations, who are willing to subscribe thereto, and abide the action of the Democratic party in its organized capacity, to join with us in our effort to build up a party in Utah in sympathy and harmony with the Democratic party of the nation.

We are unalterably opposed to the disfranchisement of any citizen except for crime, whereof he shall have been first duly convicted.

Subsequently a call was issued, signed by leading Democratic Liberals, for a mass meeting to be held in Salt Lake City on May 15, 1891, to ratify the address put forth by the Democratic club on May 5, 1891. The meeting was held, and speeches were made by leading Liberals and Mormons, and a resolution adopted indorsing the address.

On May 20, 1891, pursuant to a call signed by leading Republican Liberals, a mass meeting was held at Salt Lake City for the purpose, as stated in the call, "to organize the Republican party in Utah upon national party lines." The meeting was largely attended, and the question as to whether the organization should take place ably presented on both sides by Liberal and Mormon speakers. The following resolutions were offered, and, being put to a vote, declared adopted, despite the protest of a large number who declared the chairman in error:

Resolved, That it is the sense of this meeting that political parties in Utah should be organized with reference to national questions and politics, and to act in harmony with the national parties. That the general principles of the National Republican party are best adapted to promote the welfare of Utah and its people, and that the material and political condition of our Territory make it the duty of Republicans to at once organize in harmony with the national Republican party. And invite all voters of whatever former party or political affiliations to join our party and assist in perfecting such organization.

Resolved, That the chairman of this meeting appoint a committee of seven to take steps to perfect a county Republican organization for Salt Lake County, and a committee of seven to take steps to perfect a Territorial Republican organization in conjunction with committees from other counties.

On May 23, 1861, a call was published, signed by leading Democratic Liberals of Salt Lake City, inviting the Democrats "who believe that the time has not yet come to abandon the Liberal party," to meet on Monday, May 25, 1891. The meeting was attended by a large number, and the following resolution adopted:

Resolved, By the Democrats of Salt Lake City in mass convention assembled, nearly 1,000 in number, that the Democrats of Salt Lake City are true to the Liberal party and ask all loyal citizens to stand with them shoulder to shoulder for American principles.

On May 23, 1891, the Territorial Liberal committee met at Salt Lake City, Utah, and unanimously adopted the following resolutions:

We, the Territorial Liberal committee of Utah Territory, in meeting assembled for the purpose of considering the question as to the future interests and welfare of the Liberal party in Utah, present the following preamble and resolutions:

Whereas for upward of twenty years last past there has been a party in this Territory that has stood for American principles and American ideas, composed of men of all shades of national political belief, and who have stood here shoulder to shoulder, fighting a theocracy; and

Whereas during all that period, and for twenty years prior to that time, this theocratic government stood as a menace to American institutions, and with a solid front opposed to the just execution of Government laws; and

Whereas during all these years they were bound by political, social, and commercial ties such as never before bound a people together in this country, and

Whereas the opportunity of dividing on national party lines has been ever present, they have, with a unanimity remarkable in its character, never suggested or intimated the advisability of so doing until the present time; and

Whereas the reasons for their present anxiety is so patent and unmistakable as to make their pledges of party fealty, to say the least, questionable; and

Whereas we believe a great part of the mission of the Liberal party has been fulfilled, yet there still remains important work for it to do: Therefore be it

Resolved, That we do not indorse, sanction, or countenance in any way the attempt on the part of a few men who formerly affiliated with the Liberal party to disrupt that organization, because we believe that dismemberment means statehood, and in our opinion Utah will not be prepared for statehood until the iron hand of the church is removed from the political throat of its adherents.

Resolved, That while we congratulate the Mormon Church on the stand it has taken on polygamy and trust our belief in its sincerity is not misplaced, and while we hope that, with education, from within their own ranks the time may speedily come when their constituents shall be able to take part intelligently, from individual conviction and not from priestly dictation, in national politics, yet we can not believe from their past record that their sudden change of heart can with safety be relied upon.

Resolved, That we hereby appeal to all Liberals of Utah, irrespective of party, to stand firm in advocating and disseminating the doctrines that have won for us such splendid victories and so magnificently advanced our material prosperity throughout the Territory, believing as we do that the great majority of the Liberal party will in its wise judgment be able to decide when the time is ripe and proper for national division on party lines.

On May 24, 1891, the Salt Lake Herald, having passed, as was claimed, under the control of Democrats formerly identified with the Liberal party, announced that it would hereafter be published as the organ of the Utah Democracy.

Previous to this time the Salt Lake Evening Times had given its support to the movement in favor of the organization of the Republican party.

On May 29, 1891, in response to a call issued by the central committee, the precinct committees and the club officers of the People's party (Mormon) of Salt Lake County met and, after a spirited discussion, unanimously adopted the following resolutions:

Whereas the People's party has been maintained for the purposes of resisting attempts to curtail and destroy the political rights and privileges of the majority of the people of Utah, and its chief opponent has been the so-called "Liberal" party, whose members, while entertaining different views on national politics, have combined on local issues; and

Whereas there is a manifest disposition on the part of both the Republicans and Democrats to dissolve the unnatural union that has heretofore bound them together, to accord full rights and privileges to all citizens, and to afford them opportunity for organizing with the national parties and espousing the respective political creeds to which their individual consciences may incline; and

Whereas the existence of local political parties to the exclusion of the great political parties is an anomaly which ought not to exist in any part of the nation unless made necessary by special conditions and emergencies, a fact which has ever been recognized by the members of the People's party; and

Whereas the necessity which has heretofore existed for the maintenance of the People's party seems to be passing away in the change of conditions, and its members are desirous of realizing the hope they have long entertained of resuming and taking their respective places in the national parties as soon as the public safety would permit;

With the hope that former animosities may be obliterated and local differences forgotten in a united effort, by all classes of citizens, to promote the growth, development, and progress of that grand Commonwealth which our fathers founded in the great American desert: Now, therefore, be it

Resolved, That it is the sense of the People's county central committee, the precinct committees, and the officers of the political clubs in Salt Lake County that the People's party should be dissolved and its members left free to ally themselves with the respective national parties according to their individual preferences.

On June 10, 1891, the "People's Territorial central committee" (Mormon) met at Salt Lake City, Utah, and unanimously adopted the following resolutions:

Whereas a radical change has taken place in the political situation in this Territory the progressive people of various parties having determined to bury old strifes, to dissolve merely local combinations, and to make national questions paramount;

Whereas both Democrats and Republicans, who formerly united with the so-called "Liberal" party for the purpose of overcoming the People's party, have severed their connection and have organized under their respective party titles and principles;

Whereas each of these organizations has repudiated the "liberal" policy, designed to destroy the political liberties of the majority of our people, and have declared against disfranchisement except for crime determined by due process of law;

Whereas they have each invited the citizens of Utah, regardless of difference in religious views, to join with them in working for the political redemption of this Territory;

Whereas the chief necessity for the existence of the People's party has been the compact union and destructive designs of the "liberal" faction, which is now in process of reluctant dissolution;

Whereas the People's party has always cherished the great principles of popular sovereignty, local self-government, and national supremacy in national affairs, which both the great political parties recognize while differing as to minor matters;

Whereas several of the county organizations of the People's party have determined that the time has come when they can safely dissolve their local party associations and can labor more efficiently both for the welfare of Utah and the growth and glory of the United States by uniting with one or other of the national parties; and

Whereas it is desirable that the dissensions and struggles which have heretofore hindered the development and progress of the Territory should be left behind and obliterated in the march of its people toward their high destiny. Now, therefore, be it

Resolved, That it is the sense of the Territorial central committee of the People's party of Utah that the party throughout the Territory should dissolve and leave its members free to unite with the great national parties according to their individual preferences.

On June 13, 1891, in response to a call issued, a meeting of the Territorial Republican committee was held and the following resolutions unanimously adopted, with but one exception:

Resolved, That the declarations made by the convention which appointed this committee are still binding upon this committee.

Resolved, That we hold that the division by loyal men on party lines in Utah at this time would be an irrevocable fatal mistake, as it would place the absolute rule of the Territory in the hands of the first presidency of the Mormon Church; as it would speedily result in giving statehood to the Territory, and that statehood would be under control of the Mormon theocracy.

Resolved, That Utah is not yet prepared to accept the trust of statehood, because

a majority of her people still maintain a higher allegiance to the theocracy, under which they have all their lives served, than to the Government of the United States.

Resolved, That the material and political interests of Utah imperatively demand the united action of all loyal people in this Territory until there shall be an absolute and unqualified abandonment of polygamy, and until reasonable evidence shall be supplied that the men who control the Mormon Church have finally determined upon a complete separation of church and state in this Territory.

Resolved, That this committee views with sincere regret the drifting of a few Republicans on party lines and looks with confidence to their speedy return to the party that has made possible such advances in the political, social, and material progress of Utah as have thus far been accomplished.

To this action of the committee the dissenting member filed the following protest:

As a member of the Republican Territorial committee I protest against these resolutions.

This committee is unauthorized to act in opposition to the party we were appointed to preserve and extend its influence.

These resolutions attempt to deliver this Territory over to the Democratic party and to prevent the Republican party from obtaining the supremacy to which it is entitled.

The Mormon people, who have heretofore belonged to the People's party, are now prepared to disband to join other parties. A large majority of them, governed by their material interests, by the broad principles of education and civilization and protection contained in the platform of the Republican party, would join us. These resolutions are designed to prevent them from organizing with us and to prevent the Republican party from organizing and obtaining the victory to which it is entitled. They are in the interest of those that oppose the Republican party, and I therefore protest against them.

On June 21, 1891, a meeting of the Democratic Territorial committee was held at Salt Lake City, and the following resolutions were unanimously adopted with but one exception;

Whereas the People's party, at the desire of its members, by its constituted authorities has been dissolved and no longer exists; and whereas it is the expressed desire of those who formerly composed that party to divide upon national lines in harmony with American politics and methods, and many have already done so by attaching themselves according to their preferences to the Democratic or Republican parties; and

Whereas in Utah, as elsewhere in our common country, the Democratic party seeks to enlist the service of every patriotic citizen, to secure the triumph of its principles, that the best interests of the whole country may be subserved: Now, therefore, be it

Resolved, First, that it is the sense of this committee that the Democratic party of Utah accept the act of dissolution of the People's party as done in all sincerity and good faith, and will give to its former members who may unite with it a cordial welcome. Second, that it rejoices in the belief that we are now entering upon an era of good will wherein the animosities engendered by past local contentions will be healed, and that the people of the Territory, while contending for the supremacy of the national party of their choice, will unitedly work in peace, and without bitterness and strife, for the prosperity and happiness of the Territory. Third, that a committee composed of the chairman and three other members of the committee prepare and issue an address to the Democrats of this Territory, calling upon them to unite as one man in an effort to build up the party in Utah.

The following resolution offered by the dissenting member was voted down:

Whereas, believing that the time is not yet opportune for the Gentiles of Utah to divide on party lines, and regarding the dismemberment of the People's party as a ruse of the leaders of the Mormon Church for the purpose of obtaining statehood and ultimately obtaining its practical control to the detriment of the best interests and welfare of the Territory:

Resolved, That this committee take no action towards a division on party lines, believing that it is not in their province to do so.

Resolved, That when, in the opinion of this committee, the time shall have come to divide on party lines, a Democratic Territorial convention shall be called to act on the matter, and the chairman and secretary of this committee shall be authorized to issue such call.

The present attitude of the three political parties in the Territory will be seen in the declaration of principles adopted by each.

RESOLUTIONS ADOPTED BY THE LIBERAL PARTY ON JULY ———, 1891.

Whereas for forty years institutions of the free Government of the United States have been menaced in this portion of American territory by a theocracy so despotic in its exercise of power as to suppress all freedom of thought or action in the individual; and

Whereas during all of said time the people acknowledging its authority have been directed and educated in lines of thought tending to induce the conviction that the Government of the United States was a league with death and a covenant with hell, and an enemy to them and their institutions; and

Whereas in the past the subordination of temporal government to ecclesiastical power in the Territory of Utah has made life unendurable and the pursuit of liberty and happiness impossible for all true Americans within its sovereignty; and

Whereas the Liberal party, born of the necessities of the hour, and made possible by the union of brave and true men and women, by its strong and steady opposition for these many years past to the insolent demands of an arrogant and alien priesthood, had touched the pulse and quickened the conscience of the great people of these United States; and

Whereas the political conditions of the 150,000 people produced by years of mental slavery and superstition in the natural order of things can not possibly be changed in a day; and

Whereas all revelations, judging from the lessons of history, come from within and not from without; and

Whereas the political power of the Mormon Church in the Territory of Utah as exercised in the past, and as it now exists in the present, is a menace to free institutions too dangerous to be suffered : Now, therefore, be it

Resolved by the Liberal party of Salt Lake County in convention assembled, That we announce to our fellow citizens of the United States that there is no question of a national political character which at the present time can serve to distract the attention of them and ourselves in the single one that here confronts us.

Resolved, That the efforts of a few designing place hunters, coupled with those of the agent of the Mormon theocracy, to place the American citizens of this Territory in a false light before the country, do and of a right should receive our condemnation. There is nothing in the past nor present life of the Mormon Church which indicates to us that it has taken its priestly hand from the throat of the citizen. For years we have been fighting for the supremacy of the principle, and the veteran experience of many conflicts enables us, as we believe, to judge better than mere theorists and holiday soldiers as to present conditions.

Resolved, That the Liberal party has no animosities to gratify, no revenges to accomplish, but that it loves the principles of American liberty and reveres its institutions; that its hatreds are directed alone against the methods and madness which would subject the government, overwhelm the family, and degrade the man.

Resolved, That the men and women who are educated under and believe in the principles of free government are not prepared to say to the people of the United States at this time that the Territory should become a State. When the people here shall have become emancipated; shall have renounced all dependence in secular matters upon a hierarchy; when they evidence by their own honest endeavor in a bona fide struggle for freedom that the spirit which leavens the institutions of the country prevails indeed with them; when in fact there shall be no question that proper conditions exist; when that time comes, and not until then, are we willing that Utah shall become a free and sovereign State; because every interest of Utah, both Mormon and Gentile, forbids the admission of this Territory to statehood under present conditions, inasmuch as it would destroy values, demoralize business, and stretch around a polygamous theocracy the protection of State lines.

Resolved, That we stamp upon the attempt to divide Gentiles upon party lines as but another attempt of the Mormon leaders to accomplish by stealth and fraud and with the help of Gentile allies what they have so often failed to attain unaided, and we deplore the blindness which has led a few former friends astray.

RESOLUTION ADOPTED BY THE DEMOCRATIC PARTY ON JULY 21, 1891.

(1) We believe that the Government of the United States is a national sovereignty supreme within its sphere as delegated and defined in the Constitution, and to that Government our first allegiance is due; and we believe in a willing and loyal obedience to all its laws and a strict enforcement of the same.

(2) We believe that the several States of the Union are sovereign within their

sphere, and that upon the preservation of their autonomy depend the benefits of local self government, the liberty of the citizens and the perpetuity of the Union.

(3) We are opposed to the idea of centralized or paternal government, believing that the best government is the one that governs least; and therefore we believe in the largest liberty to the individual citizen consistent with good government.

(4) We are opposed to any legislation by the Federal Government which looks to or operates in levying taxes for the benefit of any one class at the expense of any other, but we believe that the primal idea of all taxes should be revenue, and that confined to the needs of the Government economically administered.

(5) We are opposed to any legislation tending to build up monopoly, as the result is to make rich the few to the hurt of the many, and we believe that the rule of the Government should be the greatest good to the greatest number; special privileges to none; equality to all.

(6) We are unalterably opposed to force and fraud in the conduct of elections, or to any interference with them by extraneous power or means. The Constitution of the United States should not be vitiated by makeshift legislation to facilitate party advantages.

(7) We favor the full restoration of silver to the position it occupied in our national currency before its demonetization by the Republican party.

(8) The Democratic party being naturally the friend of labor, we ask the working-men of Utah to carefully consider which of the two great national parties is best calculated to promote their welfare, and pledge to them on our part all legitimate and proper assistance to further their well being. We are opposed to Chinese or imported contract labor, and opposed to the Republican plan in vogue in Pennsylvania of discharging workmen for striking against pauper wages.

(9) We are in favor of the eight-hour per day law on all public works, and not less than the minimum rate of wages shall be paid to the various trades.

Be it resolved, That we accept the declarations and action of the Mormon people abandoning the practice of polygamy, and the People's party in disbanding the same, as done in good faith and all sincerity; and we favor the restoration of the franchise to all disfranchised citizens who will obey the laws of the United States.

(2) That the changed conditions in this Territory leave no room save for national parties.

(3) That, as Democrats, we avow our allegiance to the party that has maintained its existence since the Government was formed, and will live as long as it lasts.

(4) We adhere to the time-honored principles of Democracy, and such as are set forth in the national platform adopted by the last national Democratic convention.

RESOLUTION ADOPTED BY THE REPUBLICAN PARTY ON SEPTEMBER 2, 1891.

The Republicans of Utah in convention assembled congratulate the people of the Territory that the time has come when they can push old differences behind them and move forward upon these lines that tend most directly to the public good.

We hold that it is the part of wisdom and of patriotism to recognize the changes that have occurred and to accept their inevitable tendency, and we maintain that any effort to force conditions under which old lines would be reëstablished and old bitterness revived is to be condemned as inimical to the best interests of all the people of Utah.

We congratulate the Republicans of Utah upon the large vote polled at the recent election. Circumstances were such that the party could scarcely hope to make more than a beginning, and the splendid proportions of that beginning encourage our confident belief that the time is near at hand when a large majority of the people of the Territory will be found arrayed under the banner of the party of progress.

Believing that the party upon which communities finally rely for the best results of government should clearly define its position before the people upon all questions of general interest and importance, we hereby enunciate the following as the platform of principles of the Republican party of Utah:

We are unalterably attached to the principles of the Republican party and are prepared to maintain them before the people of this Territory, believing that they are best calculated to foster the interests of the section in which we live as well as the interests of every other section of our common country.

We affirm our unswerving devotion to the National Constitution and to the indissoluble union of the States, to the authority reserved to the States under the Constitution, and to the personal rights and liberties of citizens in all the States and Territories.

The Republicans hold that all political power is of the people, that national authority is derived from the people of all the States and State authority from the people of the particular State; that the Government of the United States possesses the powers named in its Constitution and those necessary to their exercise; that the

people of the State possess the powers not so conferred or denied to them by that instrument; that the State government may exercise such powers as remain with its people as they have not in their constitution forbidden the use of; that the national and State governments are sovereign in their respective spheres, and that there can be no conflict between their rights so bounded. And we further affirm that the allegiance of the citizen of the United States is direct and immediate and that his allegiance to the State can not intervene and that from this it follows that the United States is a nation. This doctrine was first announced in the Kentucky resolutions of 1799, penned by Thomas Jefferson. They declare that the State is authorized to judge of any infraction of its rights under the National Constitution and that nullification by the State is the rightful remedy when it decides that they are invaded. This right of the State as claimed to decide upon the authority of the National Government and to annul it, was defined as State rights and led to nullification in 1832, and in 1861 to nullification, rebellion, and treason. To defend the United States Government from the assaults of the Democratic adherents and champions of States' rights so defined by them and to preserve its existence cost American people the lives of hundreds of thousands of patriotic and brave men, untold suffering, and incalculable treasure.

We are uncompromisingly in favor of the American system of protection. We protest against its destruction proposed by the Democratic party. It serves the interests of Europe. We will support the interests of America.

The protective system must be maintained; its abandonment has always been followed by general disaster to all interests except those of the usurer and the sheriff.

We condemn the proposition of the Democratic party to place wool on the free list. This policy, persistently urged by that party, would work measureless disaster to one of our most important industries, bring ruin to many, throw a vast number of men out of employment, and lose to Utah a very large part of her income now annually received from the wool clip.

We view with undisguised alarm the persistent efforts made by the Democratic party to admit Mexican lead ore free of duty. That party supported that proposition in the last Congress, and would carry it through if it should be permitted to come into complete control of the National Government. The Republican party has given our great mining industry protection against the peon product of the Southern Republic, and has thereby conferred an inestimable blessing upon Utah; and it is entitled to the unswerving support of all who depend for their individual prosperity upon the prosperity of the Territory.

We take pride in the policy of appropriating the public lands of the United States for homesteads for American citizens and settlers, not aliens, which the Republican party established in 1862, against the persistent opposition of Democrats in Congress, and which has brought our great Western domain into such magnificent development.

And in contrast to the Republican party's record in this respect we point to the failure of the Democratic administration, under Grover Cleveland, "to execute the laws securing to settlers their titles to homesteads."

We indorse the administration of President Harrison and particularly commend the course pursued by our State Department. We heartily approve the reciprocity policy inaugurated by this administration, believing it will open new and enlarged markets for American farmers and manufacturers and be of the greatest value to this country.

We point with pride to the record of President Harrison's administration in connection with Federal appointments in this Territory, the appointments having been made from among the bona fide residents of Utah, this being in marked contrast with the record of the Democratic administration that preceded it.

We are loyally attached to those principles of the Republican party under which it strives to build up the American merchant marine and the American navy, to protect the right of franchise, to maintain free schools, to encourage temperance, to maintain the honor of the American flag, to protect American citizens at home and abroad, and to secure proper and adequate pensions for the veterans of the war, and for the dependent families of deceased soldiers.

We demand that silver shall be restored to the position that it held before the passage of the demonetization act of 1873.

We will carry forward popular government in Utah regardless of religious distinctions, by our united efforts, free from all distinction.

We are opposed to the disfranchisement of any citizen except for crime of which he shall have been convicted by due process of law, and we favor the free exercise of the power of amnesty to all citizens disfranchised on account of polygamy or polygamous relations, who will obey and uphold the laws of the United States.

We assert and recognize the dignity of labor and the necessity of proper legislation to protect its interests, that home laborers and contractors, who contribute to

the public funds, are justly entitled to the preference in all public works, and that Utah work should go to Utah workmen.

The National Republican party, in its platform adopted in 1888, declared, "The government by Congress of the Territories is based upon necessity only, to the end that they may become States in the Union. Therefore, whenever the condition of the population, material resources, public intelligence and morality are such as to insure a stable local government therein, the people of the Territories should be permitted, as a right inherent in them, to form for themselves constitutions and State governments and be admitted into the Union."

We deny that the Republican party in Utah is organized to unduly hasten statehood. The question of statehood for Utah is not involved in the present political issues, or in the division of the people of the Territory on national party lines.

We urge the enactment of laws which will establish uniformity and equity in the application of the general laws of the United States Government in respect to the location and development of mining property, so that prospectors may be more greatly encouraged to continue their explorations in our great mining districts.

We demand the enactment of a law making it a misdemeanor for employers to practice what is known as blacklisting, or to interfere with the freedom of their employes in the exercise of the franchise by any sort of coercion.

We hold that eight hours should be made by law a day's work on all public works.

We are in favor of equitable railroad legislation under which railroad companies shall be encouraged to build the lines that are needed for the further development of Utah's great resources, and which shall at the same time fully protect the interests of individuals and communities in their relations to the common carriers.

We demand such legislation as will satisfactorily equalize the assessment and taxation of property.

We favor the enactment of a personal registration law which shall compel voters to register in person or by satisfactory vouchers, giving their exact residence; and we urge the adoption of a ballot law modeled after the Australian system, so that the disgrace of fraud at the polls, heretofore too familiar in some places in this Territory, may not hereafter attach to the fair name of Utah.

During the period in which the political action above referred to was occurring, meetings were being held in the different cities and counties of the Territory, by Gentiles and Mormons, for and against the national party movement. In every instance the local committees of the People's party formally resolved to dissolve their party, and in favor of the party movement, while the Liberal committees resolved to oppose it. The Provo Enquirer and the Logan Nation, both Mormon papers, supported the Republican movement. The Provo Dispatch and the Logan Journal, also Mormon, supported the Democratic movement. The Salt Lake Tribune and the Ogden Commercial, the Park City Record, and Miner earnestly opposed party division on the part of the Liberals, while the Deseret Evening News, the Mormon Church organ, remained neutral as to the merits of the claims of the two parties, but earnestly supported division.

I have presented at some length the details of the movement to organize the people on national party lines, because of its importance and the influence it will have on the future of the Territory, and because it is a step which probably will never be retraced.

It will be seen by reading the resolutions of the People's party that there has apparently occurred among the majority of the people of Utah a political revolution; that the People's party, the dominant party in the Territory, has voluntarily ended its existence, leaving its members free to form other political alliances. It was to be expected that the sudden and unexpected dissolving of a political party which had been the strength of Mormonism, in a political sense, would excite general and varied comment, both as to the motives which inspired it and its probable effect.

The formation of political parties commenced in Ogden City. The Republicans were the first to organize and were immediately followed by the Democrats. The organizations were extended throughout Weber County, and were joined by a large part of both the Liberal and People's

parties. So long as the movement was confined to Weber County it did not seriously affect the existing political conditions in the Territory, but somewhat later the Democrats of Salt Lake County organized with a view of extending the organization of their party throughout the whole Territory, and this action precipitated the party movement. They made considerable progress with the organization in Salt Lake City and County before the Republicans made any movement towards organization here.

Some Republicans then commenced an organization in Salt Lake City and based their action on these considerations: That the majority of the Mormons had previously considered that they were more in sympathy with the Democratic party and its doctrines than with the Republican party and its doctrines; that it was evident the People's party considered the old local issues dead, and would be disbanded; that if the Democrats proceeded to organize throughout the Territory (and there was no doubt concerning their intention), and the People's party disbanded, its members from necessity would go to the Democratic party unless the Republicans organized and presented and discussed the doctrines of their party, and that delay would sacrifice the interests of their party in Utah. The Republicans claimed that statehood was not a political issue; that no one changed his opinion or pledged his future actions by joining either the Democratic or Republican parties; that all now agreed the time for asking statehood had not arrived, and that if statehood should be asked the matter was in the hands of Congress, which has refused and would again refuse statehood until in its opinion it could be properly granted. For these reasons a few Republicans in good faith commenced to organize their party. A small per cent of the Democrats in Salt Lake City, and a smaller per cent of the Republicans, left the Liberal organization, but the increase of voters in Salt Lake City supplied the loss of those who had left the Liberal party.

In Ogden, prior to the general election in August last, Liberals who had joined the Republican and Democratic organizations left these organizations and returned to the Liberal Party.

Many Liberals were of the opinion that the object sought to be accomplished by the Mormon leaders was the division of the Liberal party; that they realized so long as the Liberal party was united it would command and receive the confidence of the nation, and therefore division would defeat the aims and purposes of the Liberals. Other Liberals believed that a desire to prevent the stringent legislation threatened by Congress, and fear of the new apportionment to be made, was the controlling motive; still others believed it was the natural result of the action of the Mormon people in their general conference last year, when they voted to sustain the action of their president, advising them not to practice polygamy thereafter, combined with the influence and spirit of the age, the habits and customs of the times, education, business considerations, the enforcement of the laws, and contact with the new population coming into Utah, and still others believed the Mormon people had finally and in good faith yielded to the necessities of the situation and had wisely determined to abandon their former anomalous political policy and unite with the great political parties of the Union.

It will be noticed by the resolutions given elsewhere that the Democratic Territorial committee resolved, with one dissenting vote, to unite with the People's party in organizing political parties. The resolution offered by the dissenting member really represents the views of the majority of the Democratic non-Mormons of the Territory.

While the Liberals were far from being united in their opinions as to

the cause of the party movement, the large majority were glad the People's party had formally disbanded. It has been recognized from the beginning that the unity of the People's party, based upon the connection of its members with the Mormon Church, was a serious obstacle to a change.

When the majority of a whole people belong to one church and one political organization, and the church and party influences are the same, and when political issues are subject to such influences, it will be readily understood that any movement which would lead to a change would be welcomed by the Liberals. They applauded it as a wise action which would, if honestly supported, finally bring the Mormon people into harmonious relations with the Government, and hasten the coming of the time when legitimate politics will be discussed and individuals vote according to their personal interests and opinions instead of the interests of an organization, and there existed a general feeling of regret that they could not see their way clear to disband their own party and join in the national party movement. They were induced to withhold their acquiescence in the new movement by what seemed to them to be prudential and patriotic motives. They reasoned that the change in the policy of the dominant party was very sudden, that the interests at stake were of great importance, reaching so high as to involve our theory of government, and that patriotism demanded they should suppress the natural desire which every American citizen has to act with his party until time proved the Mormon people had taken the step in absolute good faith and were ready to accept our system of government in the same spirit as do the great body of the American people. Without desiring to appear unduly cautious, and with a genuine feeling of regret, they believed it would be the part of wisdom to wait until the Mormon people should have some experience in the new political departure. The Mormon people had been banded together so long, in ties so close, that they appeared to act as one man. Now, they said, they were going to divide and introduce into their former harmonious councils the clash of conflicting political interests. This was a crucial experiment, and the majority of the Liberals felt it was their duty to wait until it was clear there could be no possibility of their making a mistake.

There was another strong reason which inspired the Liberals to take such a course. Many of them would have joined the party movement but for the fear that behind it there was a deep-laid scheme to obtain statehood, and it is a singular fact that they suspected the motives of some of the non-Mormons, who had left the Liberal party, just as strongly as they did the motives of the Mormons. In other words, the great majority of the Liberals believe there are men supporting the party division movement, non-Mormons as well as Mormons, who would sacrifice the interests of the Territory and its people to promote the interests of the party to which they belong.

It is to be regretted that any reason should exist for doubts as to the sincerity of a movement which, if upheld in good faith, will result in so much good to the Territory, or that it should be made to bear the burden of political schemes.

It was to be expected that the determined policy of the General Government in punishing the practice of polygamy, and in withdrawing from the people political privileges usually enjoyed by the people of other Territories, together with the influence of our civilization, would gradually force the people to make a change, and that whenever the change would come it would lead to the organization of political parties.

There is no doubt the mass of the Mormon people have been silently hoping for such a change for many years, and have been waiting for the opportunity to step out from under the shadow which has so long darkened their homes. That they have remained passive so long is a testimony to the force of the influence which religious belief has upon the minds and actions of men.

I believe the mass of the people have gone into the party movement in perfect sincerity, and that it is their present determination not to retrace their steps.

What might happen if statehood should soon come and their leaders should raise the old standard, I can not say; but I believe if sufficient time is not given by the Government to enable them to outgrow the influences of the past they would submit to the will of their leaders, because we must not forget that they have been taught to believe and do believe that when their leader speaks with a "thus saith the Lord" he but gives utterance to the will of the Divine Master. It is because I believe they are sincere in their profession of religious faith that I fear what might happen should the power and opportunity be given to restore the old condition of affairs. We have an illustration of the power of the priesthood in the recent action respecting polygamy.

The Mormon people hold the key to the situation, and much will depend upon their future course. If they act in a manner that will command confidence the present opposition will cease. In the mean time the building up of political parties in their ranks will lead to the exercise of private judgment and gradually to more independent action, and result in good to the Territory.

Every person who has had the welfare of the Territory at heart has recognized that an essential requirement to the solution of what has been termed the "Mormon problem" was the division of the Mormon people, politically, on the same lines as the people elsewhere divide; that so long as they were held together by religious ties, which they deemed superior to their political ties, there could be no improvement in the situation. In every step which they have taken to destroy this unity of action they deserve to be encouraged. Certainly, if it is their intention to meet the demands of the law and conform to our institutions, no man, unless he be destitute of the nobler instincts of his race, would place an obstacle in their path. I believe it is the intention of the Liberal party to deal fairly with the Mormon people; to give them every opportunity to prove their faith by their works; to ask of Congress no further hostile legislation unless the present attitude of the majority shall be changed. And, finally, when they can do so consistently with what they deem to be the best interests of the Territory and its people, join with them in their political organizations, and when that time comes Utah will stand in complete harmony with the Government and its people, and show a progressive development corresponding with her natural resources and advantages. In the mean time the Liberal party will maintain its organization and oppose statehood with all the ability and power it possesses.

STATEHOOD.

I have elsewhere stated the fear of statehood is the principal reason why the non-Mormon citizens of Utah refused to support the movement to organize the people on national party lines. They think, or at least the great majority of them do, that admission now would be a mistake which can be called nothing less than a political crime. They will re-

joice to see the day come when Utah can safely be admitted. They have the interests of the Territory quite as much at heart as have the men who to further their party interests and their political ambition would hasten statehood. It is no reflection on the good intentions of the Mormon people to say that the effect of statehood now would be to place the Territory under the control of the Mormon Church, if it chose to assume control, because its members form a large majority of the whole people. We ought not expect too much of the Mormon people or put to too severe a test their abandonment of cherished religious practices. It should not be forgotten that the Mormons have, during all the years of their past history, run their religious and political beliefs, and the local political issues on parallel lines, and the sole political issue has been the maintenance of a church doctrine. While the church leaders have always denied that they influenced or dictated the vote of their people as churchmen, and claimed that the influence they exercised with their people was only the same political influence that the leaders of any political party exercise, still, the result is that when a church includes a whole political party, and each has the same leaders, and the religious and political interests are blended, it is impossible to draw the line between church and political influence.

Ordinarily, to make the assertion that in an American community a church could control the votes of a majority of the people would be to ascribe too much potency to the influence of the church and too little to the intelligence and good faith of the people, because we live in a land where, under constitutional guarantees, there is supposed to be an effectual divorce of church and state. And yet this has been the exact condition of Utah in the past. It has been but little over a year since the first formal announcement was made to the world by the Mormon people of their intention to renounce what they have said was a vital principle of their creed, and but little over six months since they formally dissolved the political organization which has been the chief element of the strength of the church in its contest with the Government. Is it unreasonable or unkind to suggest that if the power and opportunity were given to them to restore polygamy before they had fully outgrown the influence of the past they might do so? Is it any reflection on their sincerity to intimate that human nature does not change by the kind of church it enters; that they might be like other people who, in other times, have made all things subordinate to their religious zeal? We must remember that they believe their reward beyond the grave will be the greater if they enter into plural marriage; and while I believe that polygamy will never again be openly practiced in this land, still I also believe it will be better for the Mormon people, and for the American people, if the matter be placed as far from doubt as possible.

It is but natural to expect that for some years to come old influences will be discernible, and every consideration of prudence and justice suggests that time be given them to complete the work of emancipation.

These appear to me to be the political considerations involved, but there is the business view to be considered also. Elsewhere I have referred to the unfortunate condition of Utah in regard to the common-school fund, a condition that has arisen out of a state of affairs which were unavoidable. With her schools wholly maintained by a direct tax and no provision in that respect for the future, the burden of statehood, with the consequent increase of expenses for the support of the State government in its legislative, executive, and judicial branches, and for the registration of voters and the conduct of elections, and the other

expenses now met by the General Government, would, in my opinion, be too severe for the welfare of the people in the present state of development in the Territory, and especially for the agricultural class, who form a majority of the people, whose incomes and profits are small, and whose property can not escape taxation. It is believed that the majority will oppose statehood until the Territory is more fully developed and has more wealth. Utah has provided for her insane, for wayward youths, and for education, by establishing proper institutions, and these are now being gradually equipped and extended as the revenues of the Territory will permit. The demands made upon them by these institutions, and the other Territorial, county, and municipal expenses, entail a heavy annual burden upon the people.

Of course, every Territory ought to be admitted into the Union as soon as possible, consistent with the welfare and needs of the people. The Territorial system is contrary to the principles upon which our Government was established. It denies to the people living under it any voice in the affairs of the General Government; but statehood should never come until all the conditions which are necessary to build up a great and patriotic commonwealth are perfectly fulfilled.

UTAH COMMISSION.

It is stated that at the coming session of Congress an effort will be made to abolish the Utah Commission.

The demand will come from persons who have never been in sympathy with the law creating the Commission, or with the work of the Commission under the law.

In its sphere the Commission has performed efficient work and has been a valuable auxiliary to the work of other Federal departments in Utah. It is well to remember that the non-Mormons of Utah are not in sympathy with the demand, but desire that the Commission shall be retained.

I am, sir, very respectfully,

ARTHUR L. THOMAS,
Governor.

Hon. JOHN W. NOBLE,
Secretary of the Interior, Washington, D. C.

ANNUAL REPORT

OF THE

UTAH COMMISSION.

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, September 25, 1891.

Hon. JOHN W. NOBLE,
Secretary of the Interior, Washington, D. C.:

SIR: The Utah Commission respectfully submits the following report of its proceedings for the year ending September 1, 1891, during which period four sessions have been held in the city of Salt Lake and one in the city of Ogden, covering in all a period of about 7 months. One session was rendered necessary by reason of the fact that Congress imposed upon the Commission the additional duty of making a reapportionment of the Territory for legislative purposes, which will be more fully referred to hereafter.

Elections have been held under the supervision of the Commission since September 1, 1890, as follows:

Congressional	1
General for members of the legislature and county and precinct officers.....	1
Special elections	3
School elections: Ogden City, March 16, 1891; Salt Lake City, March 20, 1891; Birch Creek, March 20, 1891.....	3

Municipal elections in the following cities:

Date.	City.	County.	Date.	City.	County.
Nov. 20, 1890	Beaver City	Beaver.	Aug. 3, 1891	Alpine.....	Utah.
Dec. 8, 1890	Ephraim.....	San Pete.	Do.....	Spanish Fork...	Do.
Feb. 9, 1891	Ogden	Weber.	Do.....	Coalville	Summit.
Aug. 3, 1891	American Fork. Utah.		Do.....	Brigham.....	Box Elder.
Do.....	Payson	Do.	Do.....	Park City	Summit.
Do.....	Nephi	Juab.	Do.....	Tooele.....	Tooele.
Do.....	Pleasant Grove. San Pete.		Do.....	Springville	Utah.
Do.....	Lehi.....	Utah.	Do.....	Fillmore.....	Millard.
Do.....	Manti	San Pete.	Do.....	Corinne	Box Elder.

And in the following towns:

Date.	Town.	County.	Date.	Town.	County.
Aug. 3, 1891	Kanab.....	Kane.	Aug. 3, 1891	Santaquin	Utah.
Do.....	Salina	Sevier.	Do.....	Huntingdon	Emery.
Do.....	Heber	Wasatch.	Do.....	Midway	Wasatch.
Do.....	Monroe.....	Sevier.			

Officers elected.

Municipal:		County and precinct—continued.	
Mayors.....	19	School trustees.....	10
Councilors.....	138	Justices of the peace.....	169
Presidents of towns.....	7	Constables.....	129
Town trustees.....	35	Territorial:	
Recorders.....	20	Delegate to Congress.....	1
Treasurers.....	19	Commissioners to locate university lands.....	3
Marshals.....	19	Members legislative council.....	12
Assessors and collectors.....	20	Members house of representatives.....	24
Police justice.....	1		
Justices of the peace.....	40	Total officers elected:	
County and precinct:		Municipal.....	318
Selectmen.....	50	County and precinct.....	386
Collector.....	1	Territorial.....	40
Superintendents of district schools.....	25		
Coroners.....	2	Total.....	744

Registration officers appointed by the Commission.....	345
Judges of election appointed by the Commission.....	1, 107
Board of canvassers appointed by the Commission.....	10
	1, 462

Registered voters in Salt Lake City:		Total votes cast in the Territory for se-	
June, 1889.....	5, 494	lectmen.....	30, 334
June, 1890.....	7, 621		
June, 1891.....	10, 273	The result of the election for members of	
Registered voters in Utah Territory:		the legislature was—	
June, 1887.....	19, 270	For the legislative council:	
June, 1888.....	24, 925	Liberals or anti-Mormon.....	4
June, 1889.....	31, 201	Democrats.....	8
June, 1890.....	34, 143		
June, 1891.....	39, 171	Total.....	12
Votes cast for Delegates to Congress No-		For the House of Representatives:	
vember, 1890:		Liberals or anti-Mormon.....	8
People's party.....	16, 353	Democrats.....	16
Liberal.....	6, 912		
Scattering.....	28	Total.....	24
Total.....	23, 293	The last legislature stood politically as	
Votes cast for members of the house of		follows:	
representatives August 3, 1891:		Legislative council:	
Democratic.....	14, 369	Liberals or anti-Mormon.....	2
Republican.....	6, 397	People's or Mormon.....	10
Liberal.....	7, 411		
Scattering.....	63	Total.....	12
Total.....	28, 230	House of Representatives:	
Votes cast for members of the legislative		Liberals or anti-Mormon.....	5
council:		People's or Mormon.....	19
Democratic.....	13, 809		
Republican.....	6, 787	Total.....	24
Liberal.....	7, 396		
Scattering.....	47		
Total.....	28, 039		

A liberal gain in the council of 2 and in the house of representatives of 3.

At the election held in November, 1890, for the purpose of choosing a Delegate to Congress, the issues were made and the lines sharply drawn between the Liberal or anti-Mormon and the People's or Mormon party Hon. C. C. Goodwin being the candidate of the former and Hon. John T. Caine of the latter. The canvass of the Territory was an active one and much partisan feeling was developed.

In the total vote of 23,293, Hon. John T. Caine received 16,353 votes, as against 6,912 votes cast for his opponent and 28 scattering, was duly returned as elected, and was awarded the certificate of election.

When the municipal election for the city of Ogden was held in February, 1891, the Liberal party was confronted by an organization called the Citizens' party. A convention by that name was held and candidates placed in nomination, some of whom had theretofore acted with the Liberal and some with the People's party. Subsequently the People's

party convention ratified and adopted the ticket thus selected. It was charged that the Liberals, having control of the registration and, under the usual custom of appointment, likely to control the election boards, contemplated and were preparing for a system of wholesale frauds in order to carry the election, and it was demanded of the Commission that it appoint one member at least of each board of election from the newly formed Citizen's party.

For the purpose of investigating the condition of affairs the Commission held a session in the city of Ogden, inviting representatives of all the parties to appear before them. The representatives of the Citizens' party made demand for representation, accompanied by the assertion that the People's party had disbanded. This was promptly disputed by the representatives of the People's party, each and all of whom vigorously asserted that that party had not disbanded and would demand the representation the law gave it upon each of the election boards, one asserting that the People's party only supported the citizens' ticket as "a choice between two evils," and would have its own ticket in the field at the next election. The Commission declined to depart from its customary rule of action, and appointed to constitute the election boards two from the Liberal and one from the Peoples' party.

The Commission believes, from personal observation of the conduct of the election, that it was fairly conducted and was free from any attempts to override the will of the people.

The greater portion of the citizens' ticket was elected by a small majority.

As the time approached for holding the general Territorial election in August, 1891, a new condition of political affairs confronted the people of Utah. The People's party was officially declared disbanded by its Territorial committee and it was announced that for the future an alliance would be sought with the two great national parties.

This departure from established methods was hailed by some as the end that had long been looked for, while others looked upon it as a ruse through which the leaders of the Mormon Church were seeking Statehood, well knowing that their large majority would control the State thus formed.

Upon this conflict of opinion the Commission pronounces no judgment, preferring that the experiment be given a fair trial and be judged by its results. Whether the disbanding of the People's or Mormon party be an act of good faith or a ruse by which to get rid of the power and control of the National Government, the Commission is of the opinion that it is a step in the direction of educating the people to think for themselves politically, will tend to loosen the bonds in which they have in the past been held by the church, and thus be productive of good in the end.

In view of the fact that the Mormon Church has invariably in the past dictated the political movements of its adherents and presented a united front against any and every party which came in contact with it, those who now doubt its sincerity may well be excused for doubting.

That church has, through the People's party, strenuously opposed every effort made, whether by laws of Congress, the action of the courts, or of the Utah Commission, to put down polygamy. It has appealed to the courts, generally going to the court of last resort, upon every question that could be raised to sustain its assumption that it was justified in obeying the alleged will of God expressed through daily revelation vouchsafed only to themselves, as against the revealed will

of the nation expressed through its laws. It has denounced the Commission through all the years that it has been administering the laws directed against polygamy and kept a united force constantly standing and ready to oppose every effort to compel its submission to the laws of the land.

When disfranchisement stared the church in the face; when the city and county of Salt Lake, the city of Ogden and county of Weber, and Park City had been wrested from its control and other places were showing signs of becoming anti-Mormon, then and not till then did this change come.

This Commission hopes that it is the beginning of a better era. It cares not what the motive underlying the movement may be if its results be for the enfranchisement of this people and the substitution of better ideas and methods for those which have prevailed in the past.

It will do no harm to Utah or to the nation to wait a while and see what this sudden conversion—as sudden as that of Saul of Tarsus—will bring about.

Time, which proves all things, will prove whether it will be for good or ill. It is worthy of note that 7,411 Gentiles, more than ever before voted the Liberal ticket, avowed by their votes their disbelief in the sincerity of the new political movement.

It is but 2 years since this Commission and its registration officers were charged with fraud and crime because the city of Salt Lake had shown a Gentile majority of 41 in the August election, 1889.

The result of the Salt Lake municipal election of February, 1890, when the Gentiles elected their mayor and city council by a majority of 807, was made the occasion of again villifying the Commission by publishing wholesale charges of corruption from one end of the land to the other.

A sufficient answer to these charges is found in the increased registered vote and increased Liberal majority in the business centers, as shown in Salt Lake City, and in the result of the later elections.

In June, 1889, when the registry for Salt Lake City was made by which a Gentile majority of 41 was obtained, the registration lists exhibited a total of 5,494. In June, 1890, 7,621, and in June 1891, 10,273, nearly all of which represents an anti-Mormon gain, an increase of Gentile immigration.

Under this registration the Liberal party of Salt Lake elected its representatives by a majority of 1,045 over its highest competitor and of 691 over the Republican and Democratic competitors combined, and the old charge of fraud against the Commission and its officers has not been once heard.

It would seem that no better vindication of the work of the Commission would be wished for, and the redemption of the great business centers of Utah from the blight of the old régime points the way to the final redemption of the Territory if the lessons of the past are heeded and the work continued which has thus far produced such gratifying results.

As a means of securing impartial and fair elections throughout the Territory the Commission from time to time as the exigency arose issued to its registration and election officers circulars of instruction, which are given as Appendices A, B, C, and D to this report, and which it is believed were generally observed and acted upon. Many of them do not differ materially from those heretofore published and acted upon. Others seemed required to meet their present need, and the prompt ac-

quiescence of the officers so allayed partisan fears that less complaint followed the August election of 1891 than ever before.

The Commission has heretofore recommended and now repeats the recommendation that such legislation be had as will make its registration officers responsible to it for their actions.

ATTITUDE OF THE PARTIES TOWARD MORMONISM.

The Democratic party of Utah, in its declaration of principles adopted in convention July 20, 1891, has the following on local affairs :

Be it resolved, That we accept the declaration and action of the Mormon people abandoning the practice of polygamy, and the People's party in disbanding the same, as done in good faith and in all sincerity, and we favor the restoration of the franchise to all disfranchised citizens who will obey the laws of the United States.

The Republican party adopted the following resolution :

Sixth. We are opposed to the disfranchisement of any citizen except for crime, or which he shall have been convicted by due process of law, and we favor the free exercise of the power of amnesty to all citizens disfranchised on account of polygamy of polygamous relations who will obey and uphold the laws of the United States.

Upon the same subject the Liberal party declared as follows :

The American citizens of Salt Lake County in Liberal convention assembled hereby present to their fellow-citizens their platform of principles.

Whereas for 40 years institutions of the free Government of the United States have been menaced in this portion of American territory by a theocracy so despotic in its exercise of power as to suppress all freedom of thought or action in the individual; and

Whereas during all of said time the people acknowledging its authority have been directed and educated in lines of thought tending to induce the conviction that the Government of the United States was a league with death and a covenant with hell, and an enemy to them and their institutions; and

Whereas in the past the subordination of temporal government to ecclesiastical power in the Territory of Utah has made life unendurable and the pursuit of liberty and happiness impossible for all true Americans within its sovereignty; and

Whereas the Liberal party, born of the necessities of the hour, and made possible by the union of brave and true men and women, by its strong and steady opposition for these many years past to the insolent demands of an arrogant and alien priesthood, had touched the pulse and quickened the conscience of the great people of these United States; and

Whereas the political conditions of the 150,000 people produced by years of mental slavery and superstition in the natural order of things can not possibly be changed in a day; and

Whereas all revelations, judging from the lessons of history, come from within and not from without; and

Whereas the political power of the Mormon Church in the Territory of Utah as exercised in the past, and as it now exists in the present, is a menace to free institutions too dangerous to be suffered : Now, therefore, be it

Resolved by the Liberal party of Salt Lake County in convention assembled, That we announce to our fellow-citizens of the United States that there is no question of a national political character which at the present time can serve to distract the attention of them and ourselves in the single one that here confronts us.

Resolved, That the efforts of a few designing place hunters, coupled with those of the agent of the Mormon theocracy, to place the American citizens of this Territory in a false light before the country, do and of a right should receive our condemnation. There is nothing in the past nor present life of the Mormon Church which indicates to us that it has taken its priestly hand from the throat of the citizen. For years we have been fighting for the supremacy of the principle, and the veteran experience of many conflicts enables us, as we believe, to judge better than mere theorists and holiday soldiers as to present conditions.

Resolved, That the Liberal party has no animosities to gratify, no revenges to accomplish, but that it loves the principles of American liberty and reveres its institutions; that its hatreds are directed alone against the methods and madness which would subject the government, overwhelm the family, and degrade the man.

Resolved, That the men and women who are educated under and believe in the principles of free government are not prepared to say to the people of the United

States at this time that the Territory should become a State. When the people here shall have become emancipated; shall have renounced all dependence in secular matters upon a hierarchy; when they evidence by their own honest endeavor in a bona fide struggle for freedom that the spirit which leavens the institutions of the country prevails indeed with them; when in fact there shall be no question that proper conditions exist; when that time comes, and not until then, are we willing that Utah shall become a free and sovereign State; because every interest of Utah, both Mormon and Gentile, forbids the admission of this Territory to statehood under present conditions, inasmuch as it would destroy values, demoralize business, and stretch around a polygamous theocracy the protection of State lines.

Resolved, That we stamp upon the attempt to divide Gentiles upon party lines as but another attempt of the Mormon leaders to accomplish by stealth and fraud and with the help of Gentile allies what they have so often failed to attain unaided, and we deplore the blindness which has led a few former friends astray.

POWER OF THE COMMISSION QUESTIONED.

The Commission was of the opinion that under the present Territorial law elections for school purposes within the Territory of Utah should be conducted under the officers appointed by it. But in May last the school board of Salt Lake City ordered an election upon the question of issuing school bonds. Upon the Commission undertaking to provide the machinery for such election, a suit was brought against it to enjoin it from in any manner interfering with such election.

The suit was brought in the third district court of the United States before Judge Anderson, who sustained the views held by the Commission, and the election proceeded under its supervision. An appeal was taken to the Supreme Court, which, by a majority, reversed the decision of Judge Anderson. A new election was ordered, and was held by the officers chosen by the municipal authority.

While the soundness of the decision is doubted by many, the Commission has submitted to the ruling as one which all are bound to respect and obey unless reversed.

REAPPORTIONMENT.

By act of Congress of March 3, 1891, the duty was imposed upon this Commission, "as soon as practicable, and upon the basis of the census of the said Territory taken in the year 1890, to redistrict said Territory and apportion representatives in the same in such manner as to provide as near as may be for an equal representation of the people, excepting Indians not taxed, according to numbers, and by districts as nearly compact as possible, in the legislative assembly, and the number of members of the council and house of representatives thereof respectively as now established by law."

In compliance therewith the Commission met in Salt Lake City on the 10th day of May, 1891, and after due and careful consideration and after publicly inviting suggestions and plans from all parties and persons interested, reapportioned said Territory, and caused such reapportionment to be recorded in the office of the Secretary of the Territory, as required by the terms of said act, as set out in the following circular issued to all registration and election officers in the Territory:

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, June 1, 1891.

SIR: I inclose for your information a copy of the apportionment of representatives in the legislative assembly of this Territory, as made by the Utah Commission.

There are seventeen representative districts, with apportioned membership and population as follows :

No.	District.	Members.	Population.
1	Cache and Rich Counties	2	16, 036
2	Box Elder County	1	7, 642
3	Ogden City	2	14, 889
4	Remainder of Weber County	1	8, 116
5	Salt Lake City	6	44, 843
6	Davis and Morgan Counties and Pleasant Green, Hunter, and North Point precincts of Salt Lake County	1	9, 024
7	West, South, and North Jordan; Herriman, Riverton, Bluffdale, and Draper precincts of Salt Lake County; and Cedar Fort, Alpine, Lehi, American Fork, and Pleasant Grove precincts of Utah County ..	1	9, 696
8	Brighton, Granger, Farmers, Mill Creek, Sugar House, Mountain Dell, East Mill Creek, Union, South Cottonwood, Big Cottonwood, Butler, Sandy, Granite, Little Cottonwood, and Silverton precincts of Salt Lake County	1	9, 179
9	Juab County, except Mona precinct; Tooele County, and Bingham precinct of Salt Lake County	1	9, 883
10	Summit and Uintah Counties	1	10, 025
11	Provo Bench, Provo, Lake Shore, Lake View, and Springville precincts in Utah County	1	9, 209
12	Spanish Fork, Thistle, Pleasant Valley Junction, Benjamin, Salem, Goshen, Santaquin, Payson, Fairfield, and Spring Lake precincts of Utah County, and Mona precinct, of Juab County, and Thistle, Milburn, Fountain Green, and Fairview precincts of San Pete County ..	1	10, 367
13	Remainder of San Pete County	1	10, 664
14	Wasatch, Emery, and Grand Counties	1	10, 034
15	Sevier and Millard Counties	1	10, 232
16	Beaver, Pinte, and Iron Counties	1	8, 865
17	Garfield, Washington, Kane, and San Juan Counties	1	8, 516

The totals are 24 members and 207,906 population.

The council districts are made up as follows :

No.	Representative districts.	Members.	Population.
1	First	1	16, 036
2	Third	1	14, 889
3	Second and Fourth	1	15, 758
4	Fifth	3	44, 843
5	Sixth and Ninth	1	18, 907
6	Seventh and Eleventh	1	18, 905
7	Eighth and Tenth	1	19, 204
8	Twelfth and Thirteenth	1	21, 030
9	Fourteenth and Fifteenth	1	20, 266
10	Sixteenth and Seventeenth	1	17, 381

And it is further ordered that if any part of said Territory be omitted from said districts the inhabitants of such omitted portion shall belong to and be a part of the representative district and council district to which the county in which it is situate belongs unless said county itself be divided, in which case it shall belong to and be a part of the district to which it is contiguous.

And it is further ordered that the above and foregoing establishment of such new districts, and the apportionment of representatives and councilors thereto be recorded in the office of the secretary of said Territory of Utah, as provided by the terms of said act of Congress, and that said redistricting and apportionment take effect and be in force on and after this date.

Respectfully,

ELIJAH SELLS,
Secretary.

But little criticism has been made in regard to the apportionment, and the Commission invites comparison between the apportionment as actually made, and the plan submitted to it by the representatives of the People's party, which is as follows:

Proposition for the apportionment 1891, submitted to the Utah Commission.

Council.	House.	Boundaries.	Aggregate population.	Excess.	Deficiency.
1	1	Cache	17, 036	.....	296
	2	Rich			
2	3	Box Elder	7, 642	.....	991
	4	Weber, outside Ogden..... Est	8, 305	.....	328
3	5-6	Ogden	15, 000	.....	2, 333
4	7	Davis and Morgan..... Est	8, 249	.....	384
	8	Summit	7, 733	.....	933
5	9-10	Third and Fourth Salt Lake City precincts, North Point, Brighton, Granger, Hunter, Pleasant Green, and North Jordan precincts of Salt Lake County	17, 639	307	.....
6	11-12	Second Salt Lake precinct, Farmers, Mill Creek, Big Cottonwood, Little Cottonwood, Granite, Silver, Union, and Sandy precincts of Salt Lake County, also Butler precinct	17, 699	367	.....
7	13-14	First and Fifth Salt Lake City precincts, Sugar, Mountain Dell, and East Mill Creek precincts of Salt Lake County	17, 326	.....	6
8	15	Tooele County and Draper, Herriman, Bluffdale, Bingham, South Cottonwood, and West Jordan ..	8, 905	239	.....
	16	Juab and Millard Counties	9, 615	949	.....
9	17	Wasatch County and Alpine, Lakeview, Pleasant Grove, and American Fork precincts of Utah County	9, 357	624	.....
	18	Uintah, Emery, Grand, and San Juan Counties....	8, 064	602	.....
10	19	Lehi, Cedar Fork, Fairfield, Goshen, Santaquin, Payson, Spring Lake, Benjamin, Spanish Fork, Mill Fork, Clear Creek, and Thistle precincts, Utah County	9, 490	824	.....
	20	Provo, Provo Bench, Springville, Lake Shore, and Spanish Fork Bench precincts, Utah County	9, 156	490	.....
11	21-22	San Pete and Sevier.....	19, 345	2, 012	.....
12	23	Beaver, Piute, and Garfield.....	8, 639	.....	27
	24	Iron, Washington, and Kane	8, 377	.....	300

The above submitted to the Utah Commission by R. W. Young and E. A. Smith in behalf of the People's party.

The one proposed would give an almost solid Mormon legislature. The one adopted gives the Gentile population its fair and just representation.

How it would affect the Democratic and Republican parties on the hypothesis of an honest division of the people upon national party line was not inquired into, for the simple reason that nothing then existed which would furnish the basis of such an inquiry.

The order establishing the council and representative district accompanies this report as Appendix E.

POLYGAMY.

Since the last report of the Commission there has been an important change in the attitude of the Mormon Church toward this important subject.

Soon after that report was forwarded, on the 24th of December, 1890, there was given to the public through the columns of the newspapers the following remarkable manifesto:

OFFICIAL DECLARATION.

To whom it may concern:

Press dispatches having been sent for political purposes from Salt Lake City which have been widely published, to the effect that the Utah Commission, in their recent report to the Secretary of the Interior, allege that plural marriages are still being solemnized, and that forty or more of such marriages have been contracted in Utah since the last June, or during the past year; also in public discourse the leaders of the church have talked, encouraged, and urged the continuance of the practice of polygamy:

I, therefore, as president of the Church of Jesus Christ of Latter-Day Saints, do hereby, in the most solemn manner declare that these charges are false. We are not teaching polygamy or plural marriages, nor permitting any person to enter into its practices, and I deny that either forty or any other number of plural marriages have during that period been solemnized in our temples, or in any other place in this Territory.

One case has been reported in which the parties allege that the marriage was performed in the Endowment House in Salt Lake City, in the spring of 1889, but I have not been able to learn who performed the ceremony; whatever was done in this matter was without my knowledge. In consequence of this alleged occurrence the Endowment House was by my instructions taken down without delay.

Inasmuch as laws have been enacted by Congress, which laws have been pronounced constitutional by the court of last resort, I hereby declare my intention to submit to these laws, and to use my influence with the members of the church over which I preside to have them do likewise.

There is nothing in my teaching to the church or in those of my associates, during the time specified, which can be reasonably construed to inculcate or encourage polygamy, and when any elder of the church has used language which appeared to convey any such teachings he has been promptly reprov'd.

And now I publicly declare that my advice to the Latter-Day Saints is to refrain from contracting any marriage forbidden by the law of the land.

WILFORD WOODRUFF,

President of the Church of Jesus Christ of Latter-Day Saints.

At the general conference of the church, begun October 4, 1890, the manifesto was submitted and the following proceedings were had, as reported by the organ of the church:

President George Q. Cannon said: President Woodruff, as doubtless the members of the conference are aware, has felt himself called to issue a manifesto concerning certain things connected with our affairs in this Territory, and he is desirous to have this submitted to this conference; to have their views and their expressions concerning it, and Bishop Whitney will read this document now in your hearing.

After the reading—

President Lorenzo Snow offered the following: "I move that, recognizing Wilford Woodruff as the president of the Church of Jesus Christ of Latter-Day Saints, and the only man on the earth at the present time who holds the keys of the sealing ordinances, we consider him fully authorized, by virtue of his position, to issue the manifesto which has been read in our hearing, and which is dated September 24, 1890, and as a church in general conference assembled we accept his declaration concerning plural marriages as authoritative and binding."

The vote to sustain the foregoing motion was unanimous.

It is interesting to note the reasons given by those in authority for this declaration. It is also interesting to note that the reasons were not given until the declaration had been sustained by the unanimous vote of the conference.

President of the council, George Q. Cannon, said: "On the 19th of January, 1841, the Lord gave His servant a revelation, the forty-ninth paragraph of which I will read:

"Verily, verily, I say unto you, that when I give a commandment to any of the sons of men to do a work unto my name, and those sons of men go with all their might and with all they have to perform their work, and cease not their diligence, and their enemies come upon them and hinder them from performing their work; behold, it behooveth me to require that work no more at the hands of these sons of men, but to accept of their offering."

"The Lord says other things in connection with this which I do not think it nec-

essary to read, but the whole revelation is profitable and can be read by those who desire to do so.

"It is on this basis that President Woodruff has felt himself justified in issuing this manifesto.

"So far as I am concerned I can say that of the men in this church who have endeavored to maintain this principle of plural marriage I am one. In public and in private I have avowed my belief in it. I have defended it everywhere and under all circumstances, and when it was necessary have said that I considered the command was binding and imperative upon me.

"But a change has taken place. We have, in the first place, endeavored to show that the law which affected this feature of our religion was unconstitutional. We believed for years that the law of July 1, 1862, was in direct conflict with the first amendment to the Constitution, which says that 'Congress shall make no law respecting an establishment of religion or prohibiting the free exercise thereof.'

"We rested upon that, and for years continued the practice of plural marriages, believing the law against it to be an unconstitutional one, and that we had the right under that Constitution to carry out this principle practically in our lives."

President of the church, Wilford Woodruff, said:

"The Lord has required at our hands many things that we have done, many things that we were prevented from doing. The Lord required us to build a temple in Jackson Connty. We were prevented by violence from doing it. He required us to build a temple in the far West, which we have not been able to do. A great many things have been required from us and we have not been able to do them because of those that surrounded us in the world. This people are in the hands of God. This work is in the hands of God.

* * * * *

"I often think of what Lorenzo Dow said with regard to the doctrine of election. Says he: 'It is like this: You can and you can't, you will and you won't, you shall and you shan't, you will be damned if you do, and you will be damned if you don't.'

"That is about the condition we as Latter-Day Saints are in. If we were to undertake to please the world, and that was our object, we might as well give up the ship; we might have given it up in the beginning. But the Lord has called us to labor in the vineyard; and when our nation passes laws as they have done in regard to this principle which we have presented to the conference it is not wisdom for us to make war upon 65,000,000 people. It is not wisdom for us to go forth and carry out this principle against the laws of the nation and receive the consequences. That is in the hands of God and he will govern and control it. The church of Christ is here; the Zion of God is here in fulfillment of these revelations of God and are contained in these holy records in which the whole Christian world profess to believe.

"The Bible could never have been fulfilled had it not been for the raising up of a prophet in the last days. The revelations of St. John could never have been fulfilled if the angel of God had not flown through the midst of heaven, 'having the everlasting gospel to preach to them that dwell upon the earth, and to every nation and kindred and tongue and people, saying with a loud voice: Fear God and give glory to Him, for the hour of His judgment has come.' Was that angel going to visit New York, Philadelphia, Boston, and the world, and call the people together and preach to them? Not at all. But the Lord raised up a prophet. The angel of God delivered that gospel to that prophet. That prophet organized the church; and all that he has promised in this code of revelations (the Book of Doctrine and Covenants) has been fulfilled as fast as time would permit. That which is not fulfilled will be."

Such is the authoritative position of the Mormon Church.

Briefly summarized it may be read in this way:

The revelations of God to Joseph Smith, including that of plural marriage, are binding upon the people unless "their enemies come upon them and hinder them from performing that work."

They performed their "work" in establishing polygamy until "their enemies came upon them and hindered them," and disobeyed the laws of the land until, through prosecutions and punishments, they were compelled to conclude that "it is not wisdom to make war upon 65,000,000 of people," nor "to carry out this principle against the laws of the nation and receive the consequences." But it is yet to be reestablished for "all that he has promised in this code of revelations has been fulfilled as fast as time would admit. That which has not yet been fulfilled will be." The manifesto itself is remarkable in many respects. The

reasons for its promulgation contained in its text are not the reasons given by its author and his first councilor to the conference.

President Wilford Woodruff said to the conference:

I want to say to all Israel that the step which I have taken in issuing this manifesto has not been done without earnest prayer before the Lord.

His first councilor, George Q. Cannon, said:

We have waited for the Lord to move in the matter; and on the 24th of September President Woodruff made up his mind that he would write something, and he had the spirit of it. He had prayed about it and had besought God repeatedly to show him what to do. At that time the Spirit came upon him, and the document that has been read in your hearing was the result.

The document itself attributes the occasion of "the Spirit" coming upon him to "press dispatches having been sent for political purposes from Salt Lake City" in regard to the statement in the Utah Commission in its last report upon the subject of the solemnization of plural marriages; in substance, that forty or more such marriages had been reported to it by its officers during the preceding year.

A great part of the manifesto is devoted to a vigorous assertion that the report of the Commission is false, a general and specific denial of the facts stated therein, and but a small space is devoted to President Woodruff's declaration of his personal intention "to submit to the laws," and "to use his influence with the members of the church to have them do likewise." The most important part of the manifesto is contained in the closing words:

And I now publicly declare that my advice to the Latter-Day Saints is to refrain from contracting any marriage forbidden by the law of the land.

How much weight could be given to the declarations of a man who dares to assert that the Spirit of God came upon him and moved him to charge that the Utah Commission was the retailer and peddler of falsehoods, and by reason of that fact he was to declare to the world that the church he commands will now change front completely and abandon the ordinance of God, which has heretofore been so delightful a work for them to perform, can be judged to a degree from the declaration itself. Some further light may be thrown upon his character and the weight to be given his utterances by a perusal of the following, which fell from his lips at the same conference, as officially reported for the church organ:

President Woodruff said: I do not think any one can tell the hour of the coming of the Son of Man. I think those things have been sufficiently revealed to us; so that we need not look for the time of that event to be made known. I will say here that in my dreams I have had a great many visits from the Prophet Joseph since his death. The last time I met him was in the spirit world, I met him at the Temple. He spoke to me. Calling me by name, he said, "I can not stop to talk to you, for I am in a hurry." I met Father Smith. He, too, said to me "I am in a hurry." I met a great many of the apostles and others who are in the spirit world, and they all seemed to be in a hurry. I marveled at this and wondered very greatly in my mind why anybody should be in a hurry in the Paradise of God.

I had an interview with the Prophet Joseph afterward and asked him the question: "Why are you all in such a hurry here?" I said, "I have always been in a hurry in the world since I was born, but I thought there would be no occasion for it when I died and entered the spirit world." He replied, "Well, I will tell you. The prophets and apostles in this dispensation have had no time or opportunity to prepare themselves to go to the earth with the Great Bridegroom when He goes to meet the bride, the Lamb's wife. We in this dispensation have not had time. We have, first, as much work to perform to prepare ourselves as in other dispensations." He said the time was at hand for the coming of the Son of Man, for Christ to go forth in fulfillment of revelation, to meet the bride, the Lamb's wife, the Church and Kingdom of God upon the earth. Says he, "That is not revealed to us, nor ever will be until the hour comes; but we have much work to do to prepare ourselves for this event."

I have always believed from the revelations that we never would know the exact time of the coming of the Son of Man; and I am more convinced of this from what the prophet said to me in my dreams. I have had many interviews with President Young since he died, a great many teachings from him and from others who held important positions here in the flesh, but who have gone into the spirit world, and seem in a measure to have an interest and watch-care over the Church and Kingdom of God, though they have passed to the other side of the veil.

And those curious enough who delve further into the vagaries of such a mind will find light and food for reflection in some marvelous tales of miracles performed by and for him, such as casting out devils, healing those sick unto death and raising them from death to life, his opponents dropping dead at his feet, etc., as related by himself in a little volume entitled—

Leaves from my Journal. Third Book of the Faith-promoting Series. By President Woodruff. Designed for the instruction and encouragement of young Latter-Day Saints. Juvenile Instructor Office, Salt Lake City, 1881.

The Commission deems it proper to notice this production thus far, because, no matter what the motives which led to its promulgation, it is an advance. It marks an era in the great contest between the civilization of America and the forces which have so long tried to ingraft upon it a relic of Oriental lust and barbarism, and is a step which can never be retraced. It is that much wrested from an unwilling, crafty antagonist, and it should be no reproach to the Commission that it bears upon its face the acknowledgment that the work of the Commission has caused its promulgation.

The offending clause in the report for 1890, the one which is seized upon as a reason for declaring a new dispensation, is as follows:

The Commission is in receipt of reports from its registration officers which enumerates 41 persons who, it is believed, have entered into the polygamic relations in their several precincts since the June revision of 1889.

This the “inspired” manifesto of President Woodruff declares to be false.

For answer, the Commission restates the fact, and adds, that three additional cases were reported a few days after the report was formulated, which should be included in it.

During the past year, notwithstanding the “manifesto,” reports have been received by the Commission of 18 male persons who, with an equal number of females, are believed to have entered into polygamous marriages during the year. These reports have been and are at the service of the United States district attorney, but for the obvious reason that persecution might result, the names of the officers reporting such cases are not given to the public. One report says:

They marry in secret places, and on leaving, the girl goes to her friends, and he to the home of his lawful wife.

Another reports:

One man said he could not take the oath (meaning the registration oath), for, he said, to go through the Temple and take that oath are two different things.

Another says:

That the town of his residence appears to be a central locality for No. 2 of other counties to come and have their little ones; while No. 2 of that place goes elsewhere to give birth to help make up an army to Zion.

Several report such marriages and the removal of the parties to Mexico and other places.

The number of cases that have come under the cognizance of the

courts since September 1, 1890, involving the offenses defined in the acts concerning polygamy and other kindred crimes, is as follows :

Court.	Indictments found.				
	Polygamy and big-amy.	Adultery.	Unlawful cohabitation.	Fornication.	Total.
First district (Provo)		18	43	3	64
First district (Ogden)	3	11	73	2	89
Second district (Beaver)	1	3	4	1	9
Third district (Salt Lake City)	1	7	12	6	26

Court.	Convictions.				
	Polygamy and big-amy.	Adultery.	Unlawful cohabitation.	Fornication.	Total.
First district (Provo)		13	27	2	42
First district (Ogden)	1	9	29	3	42
Second district (Beaver)	1	2			3
Third district (Salt Lake City)	1	3	16	2	22
Total	3	27	72	7	109

Resubmitted to grand jury, first district court (Provo) :

Adultery	1
Unlawful cohabitation	3
Total	4

Court.	Acquittals and dismissals.				
	Polygamy and big-amy.	Adultery.	Unlawful cohabitation.	Fornication.	Total.
First district (Provo)		4	41	3	48
First district (Ogden)	1	19	10		30
Second district (Beaver)		1	3	1	5
Third district (Salt Lake City)		12	12		27
Total	1	36	66	4	110

Court.	Awaiting action.			
	Polygamy and big-amy.	Unlawful cohabitation.	Fornication.	Total.
First district (Ogden)	23	15	2	40
Second district (Beaver)		1		1
Total	23	16	2	41

The number of cases reported from the United States commissioners or the same period of time is as follows:

Complaints.

	Polyga- my and bigamy.	Unlawful cohabi- tation.	Adul- tery.	Forni- cation.	Incest.	Total.
A. C. Bishop, Ogden.....		2	6	1	1	10
R. W. Cross, Ogden.....		11	6	4		21
Jos. M. Cohen, Park City.....		20				20
J. W. Greenman, Salt Lake City.....	3	33	19	24	4	83
C. C. Goodwin, Logan.....		66	8	17		91
John E. Hills, Provo.....	1	41	4	4		50
Jacob Johnson, Spring City.....		32	3	2		37
E. P. Johnson, Corinne.....		2	1			3
Walter Jones, Monroe.....			2			2
John Kirgan, Nephi.....		1				1
J. T. Leonard, Salina.....		18	5	3		26
James N. Louder, Silver Reef.....		11				11
A. G. Norrell, Salt Lake City.....		6	5	6		17
C. E. Norris, Beaver.....		20	3	1		24
J. L. Shaffer, Box Elder.....		6				6
George C. Viele, Fillmore.....		8	2			10
W. Zabriskie, Mount Pleasant.....		14				14
Total.....	4	291	64	62	5	426

Held to bail.

	Polyga- my and bigamy.	Unlawful cohabi- tation.	Adul- tery.	Forni- cation.	Incest.	Total.
A. C. Bishop, Ogden.....		1	4			5
R. W. Cross, Ogden.....		10	5	2		17
Jos. M. Cohen, Park City.....		19				19
J. W. Greenman, Salt Lake City.....	3	28	12	15	3	61
C. C. Goodwin, Logan.....		41	4	17		62
J. E. Hills, Provo.....	1	34	4	2		41
J. Johnson, Spring City.....		13	2			15
E. P. Johnson, Corinne.....			1			1
Walter Jones, Monroe.....			2			2
John Kirgan, Nephi.....		1				1
J. T. Leonard, Salina.....		16	3	3		22
J. N. Louder, Silver Reef.....		9				9
A. G. Norrell, Salt Lake City.....		5		2		7
C. E. Norris, Beaver.....		20	3	1		24
J. L. Shaffer, Box Elder.....		5				5
George C. Viele, Fillmore.....		7	2			9
W. Zabriskie, Mt. Pleasant.....		8				8
Total.....	4	217	42	42	3	308

Discharged.

	Unlawful cohabi- tation.	Adul- tery.	Forni- cation.	Incest.	Total.
A. C. Bishop, Ogden.....	1	2	1	1	5
R. W. Cross, Ogden.....	1	1	2		4
J. M. Cohen, Park City.....	1				1
J. W. Greenman, Salt Lake City.....	5	7	9	1	22
C. C. Goodwin, Logan.....	25	4			29
J. E. Hills, Provo.....	7		2		9
J. Johnson, Spring City.....	19	1	2		22
J. T. Leonard, Salina.....	2	2			4
J. N. Louder, Silver Reef.....	2				2
A. G. Norrell, Salt Lake City.....	1	5	4		10
J. L. Shaffer, Box Elder.....	1				1
George C. Viele, Fillmore.....	1				1
W. Zabriskie, Mount Pleasant.....	6				6
Total.....	74	22	20	2	118

Jacob Johnson, Spring City, also reports that he has pending now in his court 23 cases, as follows: Unlawful cohabitation, 18; polygamy, 1; adultery, 4.

Such facts compel the conclusion that polygamy is not yet "a dead issue," and the query may well be made whether any such manifesto would have been promulgated, and the apparent attitude of the church upon this subject changed, but for the offending report of the Commission, and the prospect of disfranchisement which seemed imminent through and by means of the measures known as the Cullom and Struble bills, then pending in Congress.

However this may be, it should be accepted as a progressive step, and time may bring from it fruit which will gladden the heart of the nation.

CHURCH AND STATE.

This Commission has been severely criticised and roundly abused for calling attention to the interference of the Mormon church in political affairs, and as vigorous a denial of that fact has been made as the denial of the practice of polygamy.

Whether the Commission has truly stated facts coming under its observation upon this point may be judged by the following correspondence asserted to be genuine and published without contradiction, the final act of the church tribunal being had January 3, 1890.

PROVO CITY, UTAH, *January 12, 1888.*

JOSEPH D. JONES, Esq.,
Provo City Utah:

DEAR SIR: I have learned from sources that are considered reliable that you have identified yourself with an organization known as the "Loyal League of Utah," and as some of their principles are in direct opposition to some of the principles of the "Church of Jesus Christ of Latter-Day Saints," for instance the principle of celestial marriage and local self government, and as you are an officer in the said church, I consider that it is inconsistent to hold both positions.

Now, I do not question your right to belong to either party, but I do your consistency to belong to both.

I shall be pleased to have you exercise your choice and decide which side you will take, and shall be pleased to hear from you at your earliest convenience.

Yours truly,

J. E. BOOTH,
Bishop Fourth Ward, Provo City.

PROVO CITY, UTAH, *January 15, 1888.*

J. E. BOOTH,
Bishop Fourth Ward, Provo City.:

DEAR SIR: In answer to your note of the 12th instant requesting my resignation as a member of the Church of Jesus Christ of Latter-Day Saints for the reason, as set forth in your note, that I am a member of the "Loyal League of Utah," and giving as your reasons that some of the principles are in direct opposition to some of the principles of the church, I think you are mistaken as to the principles of the league, some of which, as I understand them, to be opposed to the political control and law-defying practices of this or any other church, and further recognize the laws of Congress, made in pursuance of the Constitution, as the supreme law of the land and advocate obedience to the same, anything in the laws of any State, Territory, or church to the contrary notwithstanding. Believing these to be the true principles of civil government, I feel justified in advocating the same with malice to none.

If, from this explanation, you find that I have violated any trust of the above church or that it is inconsistent for me to remain a member, you will please erase my name from the church record.

With the best of feelings, I remain, yours truly,

J. D. JONES.

In the high council of the Utah Stake of Zion. In the matter of fellowship of Joseph D. Jones, of Provo City, Fourth ward, citation:

The high council of the Utah Stake of Zion send greeting to Joseph D. Jones, esq. :

You are hereby cited to be and appear before said council at the council room in the stake house, Provo City, Utah Territory, on Friday, the 2d day of November, A.D. 1888, at 7 o'clock p. m. of that day, then and there to show cause, if any you have, why the decision of the bishop's court of Provo, Fourth ward, dated March 17, 1888, withdrawing the hand of fellowship from you, should not be sustained, and that you be excommunicated from the Church of Jesus Christ of Latter-Day Saints.

Witness Abraham O. Smoot, president of the high council of the Utah Stake of Zion, this 31st day of October, 1888.

JAMES W. BEAN, *Clerk.*

PROVO CITY, UTAH, *January 3, 1890.*

At a meeting of the high council of the Utah Stake of Zion, held on the above date, "On motion of Charles D. Glazier, Joseph D. Jones, of the Fourth ward, Provo City, of this stake, be, and hereby is, excommunicated from the Church of Jesus Christ of Latter-Day Saints for apostasy."

V. L. HALLIDAY,
Clerk High Council.

Delivered in the tabernacle at Provo on Sunday, October 19, 1890, shortly prior to the election of Delegate to Congress:

Elder Brimhall occupied the pulpit and dwelt on his mission to Arizona. He advocated the discontinuance of politics in religious meetings, as he considered it unwise to have too much to say on that subject regarding religion.

The next speaker was Bishop Smoot, who said that Brother Brimhall had almost forestalled his political sermon, and that he thought it was the duty of every eligible voter to prepare himself for the coming contest, to send a friend of Utah and its people and not an avowed enemy known as the editor of the Tribune, who had vilified the speaker and his people time and time again for the last 10 years, and that some of the saints had neglected to qualify themselves as voters. That as the president was debarred from casting his vote in the coming contest on account of the Edmunds law, he was desirous that all his people would be at the polls on the 4th of November next and prevent C. C. Goodwin, Utah's greatest enemy, from going to Congress as a Delegate from Utah; that the speaker could not indorse the nominee, and he would ask one and all of the Latter-Day Saints again to attend to their duties on election day at the polls in the name of the God of Israel.

He exhorted the people to stand faithful to the great cause and that this little tremor would soon pass by about the manifesto and Zion would prosper in the near future.

If the new departure should do away with this order of affairs, it will doubtless do more to educate the people and prepare them for the true duties of citizenship than to retain the practice while denying its existence, precisely as the same organization practiced polygamy for years while denying that the practice existed.

The Commission is glad to record the steps already taken on the road to a better civilization, will aid with all its power in forwarding the good work, but can not recommend the withdrawal at this time of any portion of the safeguards thrown around this people by the law-making power of the Government.

Utah is exhibiting a grand development. Its mineral output is helping to enrich the world, while its agricultural productions, measured by its irrigable area, are marvelous.

Its great business centers are increasing rapidly in population; a young, virtuous, and vigorous people, imbued with and nurtured in all that pertains to true Americanism, is crowding upon and outnumbering the element which in all its history has been a drag upon the body politic and a blight upon all that came within its influence, and is compelling the adoption of its views, habits, and policy.

This applies mainly to the centers of business, Salt Lake, Ogden, Park City, and the mining towns scattered here and there, for the Ter-

ritory at large has to-day a voting population of sectarian devotees who outnumber the antimormon population in the ratio of at least 3 to 1.

In the light of history no one can doubt the power of the church to control this vote as a solid force for the furtherance of its ends whenever it should elect so to do.

It would seem that the American people can well afford to continue a policy which has produced such results and await the full fruition of their hopes, while yet guiding and controlling with their hands the movement which promises still better results in the future.

This Commission can not recommend that the protecting and fostering hand of the Government be withdrawn, and is most emphatic in expressing its opinion that it would not at this time be safe to intrust to this people the responsibilities and duties of Statehood, as they so much desire.

Not only would such a step be a mistake which would retard Utah progress, but the mistake might be productive of the direst results to the people of Utah and of the nation, and would be without a remedy, except the remedy which is always to be deplored, most of all by a people not yet fully recovered from the effects of internecine war.

G. L. GODFREY,
Chairman.

R. S. ROBERTSON.

ALVIN SAUNDERS.

A. B. WILLIAMS.

APPENDIX A.

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, May, 1891.

SIR: I inclose herewith a commission appointing you a judge of election for the general election in August. Upon your acceptance of the appointment, please subscribe and swear to the oath inclosed and return the same to me. The following has been prepared by the Commission for the information of election judges:

SEC. 1. The Commission will appoint three capable and discreet persons, who are eligible, in each precinct of the several counties to act as judges of election, one at least of whom shall be of the political party that was in the minority at the last previous election, if any such party there be in such precinct. The secretary of the Commission will make out certificates of said appointments and transmit the same by mail or other safe conveyance to the person so appointed, who, previous to entering upon said office, shall take and subscribe the oath inclosed with said certificate of appointment. If in any precinct any person appointed judge declines to serve or fails to appear, the deputy registration officer of the precinct shall, by appointment, fill the vacancy, and the person so appointed shall qualify as herein provided. And said registration officer shall immediately transmit the oath of the person so appointed, together with the name of the person declining to serve, to the secretary of the Commission.

SEC. 2. The judges of election will take the oath of office before any notary public, justice of the peace, deputy registration officer, or other officer authorized to administer oaths, and send said oath immediately by mail to the secretary of the Commission, as an evidence of the acceptance of the office, and shall also subscribe to the oath printed on the back of the commission.

SEC. III. The Commission will provide the necessary books, blanks, stationery, and envelopes for each voting precinct; and the judges of election will procure the ballot boxes from the clerks of the county courts.

SEC. IV. Before opening the polls the ballot box shall be carefully and publicly examined by the judges of election, who shall satisfy themselves that nothing is therein. It shall then be locked and the key delivered to the presiding judge; and said ballot box shall not be opened during the election.

SEC. V. At the opening of the polls on the day of election the judges of election for their respective precincts shall designate one of the judges to act as clerk, who shall have in custody the registry of voters and shall make the entries therein required by law; the other of said judges, acting as clerk, shall write the name of each person voting, and opposite to it the number of the vote. Every voter shall

designate on a single ballot, written or printed, the name of the person voted for, with a pertinent designation of the office to be filled, which ballot shall be neatly folded and placed in one of the envelopes hereinbefore provided for, and delivered to the presiding judge of election, who shall, in the presence of the voter, on the name of the proposed voter being found on the registry list, and all challenges to such vote being decided in favor of such voter, deposit in the ballot box without any mark whatever being placed on such envelope; otherwise the ballot shall be rejected. Whenever any ballot shall be deposited in the ballot box the judge having the registry list shall write the word "Voted" opposite the name of the person casting the vote.

SEC. VI. Challenges shall be allowed at the polls for cause, by any qualified voter, and the judges of election, or a majority of them, shall hear and immediately decide upon any challenge that may be made. If the challenge is on account of alleged want of citizenship and it appears that the voter is a person of foreign birth, he shall not be allowed to vote except on producing his naturalization papers or proving that such papers have been issued and lost or destroyed. And if the voter, being a person of foreign birth, claims the right to vote by reason that he has become a citizen by the naturalization of his parents, the judges shall receive the vote upon satisfactory oral proof, without requiring the production of the naturalization papers of the parents.

Challenges, and the questions to be propounded thereunder, must relate only to the qualifications of the voter under the Territorial law or the acts of Congress, and the following specifications include all the disabilities to which electors are subject under the United States laws:

"No polygamist, bigamist, or any person cohabiting with more than one woman shall be entitled to vote at any election in this Territory; nor any person who has been convicted of the crime of incest, unlawful cohabitation, adultery, fornication, bigamy, or polygamy; nor any person who associates or cohabits polygamously with persons of the other sex; nor can any person vote who has not taken and subscribed to the oath prescribed by the twenty-fourth section of the act of Congress of March 3, 1887; nor can any woman vote."

SEC. VII. As soon as the polls shall be closed the judges of election shall immediately proceed to canvass the votes cast at such election, and continue without adjournment until completed. And all candidates voted for may be present in person or by representative to witness said count. If any envelope contains two or more ballots of the same kind folded together only one shall be counted.

SEC. VIII. The canvass shall commence by the judges who have acted as clerks of the election comparing their respective lists, and ascertaining from said lists the number of votes cast. The box shall then be opened and the ballots therein taken out and counted by the judges, and the judges, acting as clerks, shall each make a list of all the persons voted for. The presiding judge shall then proceed to open the ballots and call off therefrom the names of the persons voted for and the offices they are intended to fill; and the judges acting as clerks shall take an account of the same upon their list; and all the ballots shall be returned to the ballot box, and the ballot box shall be locked and securely sealed; and the box, with the ballots inclosed, shall be preserved by the presiding judge of the election for twenty days after the result of the election has been declared by the Commission; and said ballot box, with the ballots inclosed, shall be forwarded to this Commission immediately on being so required by the Commission. If not so required the ballots shall be destroyed by the presiding judge of the election, and the ballot box shall be returned by him to the office of the clerk of the county court.

SEC. IX. After the canvass shall have been completed the judges of election shall add up and determine the number of votes cast for each person for the several offices, which result shall be placed on the lists made by the judges acting as clerks of the election; and the judges shall thereupon certify to the same and shall forward all the lists, securely sealed, by mail or other safe conveyance, to the secretary of the Commission at Salt Lake City, Utah.

SEC. X. The judges of election shall open the polls 1 hour after sunrise and close at sunset.

SEC. XI. The judges of election shall receive compensation as follows: Three dollars per day for conducting the election and 30 cents an hour for the time necessarily employed canvassing the votes, and each of said officers is authorized to administer all oaths required in the conduct of the election.

SEC. XII. Where a municipal election is held at the time of the general election, the judges of the general election will also perform the duties of judges of the municipal election, using separate ballot boxes and making separate returns of each election. But one day's time will be allowed for such services and 30 cents per hour additional time actually and necessarily employed in canvassing the vote.

By order of the Commission.

ELIJAH SELLS,
Secretary of Utah Territory and Ex-officio Secretary of the Commission.

APPENDIX B.

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, July 30, 1891.

The Utah Commission, in view of the approaching election on the 3d of August next, deems it proper to issue the following circular:

To the officers of election and voters of Utah Territory:

The Utah Commission being charged with the duties of registration and elections in the Territory, after due consideration have thought it advisable to make this public appeal to the registration officers, judges of election, and voters at the election to be held on the 3d day of August next.

The Commission is desirous of having, and, so far as it has authority by law, is determined to have a fair and impartial election; that everything like fraud shall be put down; that every lawfully registered voter in the Territory shall have the privilege of depositing his ballot freely, as he wishes, and without intimidation, and that none who are not legally registered shall be permitted to vote, no matter what may be the circumstances.

The Commission suggests that judges of elections in passing upon challenges at the polls shall do so impartially and fairly, rejecting none who are legally qualified, admitting none who are not, keeping in mind that the presumptions of law are in favor of the elector until the contrary is shown.

Attention is respectfully called to the following section of the election law:

"Any person who shall disturb or be guilty of any riotous conduct at any election in this Territory, or who shall disturb or interfere with the making of the returns, or who shall interfere with any voter in the free exercise of the elective franchise shall be deemed guilty of a misdemeanor." (Compiled Laws of Utah, 1888, vol. 1, p. 326, sec. 266.)

It is suggested that prompt arrests be made for any violation of this statute.

In the interest of fairness the Commission further suggests that, in all towns and cities, no person except the county registrar or his deputy, judges of election, the sheriff or his deputies, the United States marshal or his deputies, police officers on duty, and such challengers, not more than two, as may be selected by each party, and those in line as voters, be permitted to remain within 100 feet of the polls at one time, and that when one has voted he shall immediately pass beyond the limit fixed for approach to the polls and not return.

The Commission most earnestly invokes all good citizens of all parties to lend their influence in aid of a fair and honest election; that they frown and stamp upon all frauds or attempted frauds tending to unfairness at the polls or in the returns of the election, ever keeping in mind the great truth that the freedom of the American people depends largely on the purity of the ballot box.

The Commission takes great pleasure in bearing witness to the fairness in all elections heretofore held under its authority and management, and with great confidence looks to the same result in the approaching election.

The manhood of Utah can not afford to prostitute itself by frauds in elections.

G. L. GODFREY,
Chairman, Utah Commission.

APPENDIX C.

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, August 3, 1891.

To the Judges of Election and Registration Officers:

As heretofore announced by the Commission, under the decision of Hon. C. S. Zane, chief justice of the United States courts for Utah Territory, delivered October 27, 1889, in the case of W. P. Bennett, the Commission is of the opinion that a person otherwise qualified, who has heretofore been living in the polygamous relation, but has dissolved that relation in some effectual manner, is entitled to register and vote.

The Commission desires again to call the attention of election officers to its circular of July 31, 1890, which provides among other things that whenever it appears that the name of a voter has been stricken off or omitted from the registry list without fault on the part of the said voter, and said voter is not disfranchised by any act of Congress, that the name of said voter should of right be reinstated by the deputy registrar on the registration books of the proper precinct and he be permitted to vote at the ensuing election.

G. L. GODFREY,
Chairman.

APPENDIX D.

Circular issued by the Utah Commission for the information of the registration officer and deputies of Salt Lake City, for the municipal election to be held on the 8th day of February, 1892.

1. The Utah Commission will appoint one chief registration officer for the city of Salt Lake, and as many deputy registration officers as may be necessary for each municipal precinct in said city, who shall commence the work of registration on Monday, the 2d day of November, A. D. 1891, and complete the registration as soon as practicable.

2. It shall be the duty of the chief registration officer, prior to the 1st day of November, A. D. 1891, to apply to the county clerk of Salt Lake County for a certified copy of the registry lists as last returned to him of all the precincts within the corporate limits of said city.

3. Said registration officer, upon the receipt of said lists, shall, by himself or deputy, and before the third Monday in December next, which will be the 15th day of said month, visit every dwelling house, lodging house, tenement house, hotel, and other places of abode in each precinct of said city, and make careful and diligent inquiry if any person whose name is on said list has died or removed from the precinct, or is otherwise disqualified as a voter, and if so, to erase the name therefrom; or whether any qualified voter resides therein whose name is not on said registration list, and if so, he shall ascertain upon what ground said person claims to be a voter, and shall require any such person entitled to vote and desiring to be registered to take and subscribe to the following oath:

TERRITORY OF UTAH, *County of Salt Lake*:

I, ———, being duly sworn [or affirmed], depose and say that I am over 21 years of age; that I have resided in the Territory of Utah for 6 months last past, and in this precinct for 1 month immediately preceding the date hereof; and that I am a native-born [or naturalized, as the case may be] citizen of the United States; that my full name is ———; that I am ——— years of age; that my place of business is ———; that I am a [single or] married man; that the name of my lawful wife is ———, and that I will support the Constitution of the United States, and will faithfully obey the laws thereof, and especially will obey the act of Congress approved March 22, 1882, entitled "*An act to amend section 5352 of the Revised Statutes of the United States in reference to bigamy and for other purposes, approved March 22, 1882,*" in respect of the crimes in said act defined and forbidden, and that I will not, directly or indirectly, aid or abet, counsel or advise, any other person to commit any of said crimes defined by acts of Congress as polygamy, bigamy, unlawful cohabitation, incest, adultery, and fornication.

Sworn and subscribed to before me this — day of ———, A. D. 18—.

Deputy Registration Officer for ——— Precinct, ——— County.

4. Although the person applying to have his name registered as a voter may have made the foregoing oath, yet if the registrar shall, for reasonable or probable cause, believe that the applicant is then, in fact, a bigamist, polygamist, or living in unlawful cohabitation, or associating or cohabiting polygamously with persons of the other sex, or has been convicted of bigamy, polygamy, unlawful cohabitation, incest, adultery, or fornication, in our opinion the registrar may require the applicant to make the following additional affidavit:

TERRITORY OF UTAH, *County of Salt Lake*:

I, ———, further swear [or affirm] that I am not a bigamist, polygamist, or living in unlawful cohabitation, or associating or cohabiting polygamously with persons of the other sex; and that I have not been convicted of the crime of bigamy, polygamy, unlawful cohabitation, incest, adultery, or fornication.

Subscribed and sworn to before me this — day of ———, A. D. 189—.

Deputy Registration Officer for ——— Precinct, Salt Lake City.

[NOTE.—Those parts of the above forms in relation to being sworn or affirmed and as to being a native-born or naturalized citizen, or as to being a single or married man, should be changed by erasure or a line drawn through the words, so as to be applicable to the case.]

Upon the receipt of such affidavit the officer shall place the name of such voter upon the registry list of such precinct.

5. Voters removing from one precinct to another may appear before the registration officer previous to the second Monday in January, 1892, which will be the 11th day of said month, and have their names erased from the registry list of the precinct in which they may have been registered, and entered upon the list of the precinct to which they may have removed. Persons failing in this can not vote.

6. It shall also be the duty of the registration officer to give public notice in the newspapers of the city, at least one week beforehand, that he will be and remain, by himself or deputy, at his office, the place of which shall be properly designated by street and number, during the week commencing on the fourth Monday in December next, which will be the 28th day of said month, for the purpose of entering on the registry list of any precinct in said city the name of any voter which may have been omitted, on such voter appearing and taking the oath aforesaid, if he has not previously taken and subscribed the same, and to make other corrections; that he shall remain at his said office from 9 till 12 o'clock a. m., from 2 to 5 and 7 to 9 o'clock p. m. for the convenience of the public.

7. The registration officers are urgently requested (and neglect thereof will subject them to removal) to make diligent inquiry and by all reasonable means to ascertain the names which appear upon the registry lists of all persons who have died or permanently removed from the precinct, or are otherwise disqualified as voters, and to erase all such names from the list; it being the earnest wish of the Commission to eliminate from the list the names of all persons who are not residents of the city and not legally qualified under the law to vote.

8. Upon completion of the lists the registration officer shall prepare triplicate lists in alphabetical order for each precinct, containing the names of all registered voters, one of which lists shall be filed in the office of the clerk of the probate court on or before the second Monday in January, 1892, which will be the 11th day of said month, one list to be posted up in each precinct at least fifteen days before the day of election (8th February, 1892) at or near the place of election, and the other list transmitted by him to the presiding judges of election of the several precincts for use at the polls; and the oaths or affirmations of the registered voters, immediately after the day of election, shall be delivered to the clerk of the probate court of Salt Lake County.

9. Prior to the election the city registration officer shall cause to be written or printed a notice which shall designate the office or offices to be filled, and stating that the election will commence at ——— (designating the place for holding the polls), one hour after sunrise, and continue until sunset on the ——— day of ———, 1892.

Dated at Salt Lake City, on this ——— day of ———, A. D. 1892.

Registration Officer.

A copy of which should be posted up at least 15 days before the day of election, in three public places in each precinct in the city, calculated to give notice to all the voters. It is the duty of the registration officer to give notice on the list posted as aforesaid, in each of the five precincts of the city, that the Hon. Charles S. Zane, chief justice of the supreme court, who has been appointed for that purpose, will hear objections to the right to vote of any person registered in any precinct, until sunset on the fifth day preceding the day of election. Said objection shall be made by a qualified voter, in writing, and delivered to Judge Zane, who will issue a written notice to the person objected to, stating the place, day, and hour when the objection shall be heard. The person making the objection shall serve or cause to be served, said notice on the person objected to, and shall also make return of such service to Judge Zane, before whom the objection is to be heard. In our opinion the objections should specify the grounds thereof, and should be made separately as to each person objected to; and actual personal service should be proved by the affidavit of the person making the same, unless service and return thereof be made by an officer authorized by law to serve process, and at least 2 days' notice should be given. Upon the hearing of the case, if said judge shall find that the person objected to is not a qualified voter, he shall, within 3 days prior to the election, transmit a certified list of all such disqualified persons to the judges of election appointed by the Commission; and said judges should strike such names from the registry list before the opening of the polls. In view of the numerous complaints that have been made with respect to the working of this provision of the law, the Commission recommends that when a decision is made striking the name of a person from the list of voters, the fact should be made known to him without delay, either orally or in writing.

10. The Commission being solicitous to secure a perfect registration of the qualified voters of the city, and to prevent as far as possible in their power all frauds in the registration and election, further suggests and insists upon pain of removal from

office, and as a matter of caution and with a view to the identity of electors, that the deputy registration officers of the different precincts in the city, at the time of revising the registration lists, shall enter opposite each name on the list the place of residence of the voter, by street and number, and his occupation, and in all cases of removal from one precinct to another, that the residence from which the voter removed shall be entered, as well as the one to which the change is made; and to carry out this suggestion the Commission will furnish to the registration officers books properly ruled for the purpose.

G. L. GODFREY,
Chairman.

APPENDIX E.

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, May 21, 1891.

Whereas, by an act of Congress entitled "An act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1892, and for other purposes," approved March 3, 1891, the Board of Commissioners, known as the Utah Commission, was authorized, "as soon as practicable and upon the basis of the census of said Territory, taken in the year 1890, to redistrict said Territory and apportion representatives in the same in such manner as to provide, as nearly as the same may be, for an equal representation of the people, excepting Indians not taxed, according to numbers, and by districts as nearly compact as possible, in the legislative assembly, and to the number of members of the council and house of representatives thereof, respectively, as now established by law; and to cause a record of the establishment of such new districts, and the apportionment of representatives thereto, to be made in the office of the Secretary of said Territory." And

Whereas said Utah Commission, under and by virtue of said authority, met at Salt Lake City, in said Territory of Utah, on the 11th day of May, 1891, for the purpose of making such apportionment and redistricting said Territory for legislative purposes and has duly and carefully considered the same; it is therefore ordered that the said Territory of Utah be, and the same is hereby, apportioned and redistricted into representative and council districts, each of which shall choose representatives and councilors as set out in the list of such representative and council districts respectively, as follows:

The first representative district shall consist of Cache and Rich Counties, and shall be entitled to two Representatives.

The second representative district shall consist of Box Elder County, and shall be entitled to one representative.

The third representative district shall consist of Ogden City, in Weber County, and shall be entitled to two representatives.

The fourth representative district shall consist of all of Weber County, excepting Ogden City, and shall be entitled to one representative.

The fifth representative district shall consist of St. Lake City, in Salt Lake County and shall be entitled to six representatives.

The sixth representative district shall consist of Davis and Morgan Counties, and Pleasant Green, Hunter, and North Point precincts of Salt Lake County, and shall be entitled to one representative.

The seventh representative district shall consist of West Jordan, South Jordan, North Jordan, Herriman, Riverton, Bluffdale, and Draper precincts of Salt Lake County, and Cedar Fort, Alpine, Lehi, American Fork, and Pleasant Grove precincts of Utah County, and shall be entitled to one representative.

The eighth representative district shall consist of Brighton, Granger, Farmers, Mill Creek, Sugar House, Mountain Dell, East Mill Creek, Union, South Cottonwood, Big Cottonwood, Butler, Sandy, Granite, Little Cottonwood, and Silverton precincts of Salt Lake County, and shall be entitled to one representative.

The ninth representative district shall consist of Juab County excepting Mona precinct, Tooele County, and Bingham precinct of Salt Lake County, and shall be entitled to one representative.

The tenth representative district shall consist of Summit and Uintah Counties, and shall be entitled to one representative.

The eleventh representative district shall consist of Provo Bench, Provo, Lake Shore, Lake View, and Springville precincts of Utah County, and shall be entitled to one representative.

The twelfth representative district shall consist of Spanish Fork, Thistle, Pleasant Valley Junction, Benjamin, Salem, Goshen, Santaquin, Payson, Fairfield, and Spring Lake precincts of Utah County, and Mona precinct, of Juab County, and

Thistle, Milburn, Fountain Green, and Fairview precincts, of San Pete County, and shall be entitled to one representative.

The thirteenth representative district shall consist of the remainder of San Pete County, consisting of Moroni, Mount Pleasant, Spring, Chester, Wales, Ephraim, Manti, Dover, Fayette, Gunnison, Sterling, and Mayfield precincts, and shall be entitled to one representative.

The fourteenth representative district shall consist of Wasatch, Emery, and Grand Counties, and shall be entitled to one representative.

The fifteenth representative district shall consist of Sevier and Millard Counties, and shall be entitled to one representative.

The sixteenth representative district shall consist of Beaver, Piute, and Iron Counties, and shall be entitled to one representative.

The seventeenth representative district shall consist of Garfield, Washington, Kane, and San Juan Counties, and shall be entitled to one representative.

The first council district shall consist of the first representative district, and shall be entitled to one councilor.

The second council district shall consist of the third representative district, and shall be entitled to one councilor.

The third council district shall consist of the second and fourth representative districts, and shall be entitled to one councilor.

The fourth council district shall consist of the fifth representative district, and shall be entitled to three councilors.

The fifth council district shall consist of the sixth and ninth representative districts, and shall be entitled to one councilor.

The sixth council district shall consist of the seventh and eleventh representative districts, and shall be entitled to one councilor.

The seventh council district shall consist of the eighth and tenth representative districts, and shall be entitled to one councilor.

The eighth council district shall consist of the twelfth and thirteenth representative districts, and shall be entitled to one councilor.

The ninth council district shall consist of the fourteenth and fifteenth representative districts, and shall be entitled to one councilor.

The tenth council district shall consist of the sixteenth and seventeenth representative districts, and shall be entitled to one councilor.

And it is further ordered that if any part of said Territory be omitted from said districts, the inhabitants of such omitted portion shall belong to and be a part of the representative and council district to which the county in which it is situate belongs, unless said county itself be divided, in which case it shall belong to and be a part of the district to which it is contiguous.

And it is further ordered that the above and foregoing establishment of such new districts, and the apportionment of representatives and councilors thereto, be recorded in the office of the secretary of said Territory of Utah as provided by the terms of said act of Congress, and that said redistricting and apportionment take effect and be in force on and after this date.

G. L. GODFREY,
Chairman.

A. B. WILLIAMS.
R. S. ROBERTSON.

MINORITY REPORT OF JOHN A. M'CLERNAND.

OFFICE OF THE UTAH COMMISSION,
Salt Lake City, September 25, 1891.

Hon. JOHN W. NOBLE,
Secretary of the Interior, Washington, D. C.:

SIR: As I can not consistently concur in all of the statements made or conclusions reached in the majority report of my colleagues, with their consent and with respect for all concerned, I herewith submit this minority report, in which I shall notice the following matters:

The legal authorization of the Utah Commission and its transactions since the date of its last annual report.

The penal inhibition of sexual offenses and the restrictions of suffrage in Utah, with the judicial affirmance of the constitutionality of both measures.

The virtual independence of electoral registrars and election judges in the Territory, adding, as I proceed, some recommendations and general reflections.

Pursuant to the act of Congress approved March 22, 1882—the Edmunds law—President Arthur appointed five persons, members of one or other of the national political parties, to compose the Commission. These persons were chosen from the body of the citizens of as many States upon the alleged supposition that they would be free from the passions and prejudices which had so long disturbed the Territory. This precedent, responsive to the spirit of the statute, was designed to secure judicial impartiality in the exercise of the Commission's functions. As relating to suffrage and eligibility to office, fundamental to republican government, it could hardly have been otherwise. It has hitherto been followed. No change has occurred in the personnel of the Commission save through appointments to fill vacancies caused by death or resignation. No instance of removal has transpired.

ELECTIONS.

Elections have occurred in the Territory at frequent and varying intervals of time since the date of the Commission's last annual report. This frequency and variance is attributable to lack of unity and uniformity in the schemes of elections, and deserves to be remedied, not only for the sake of convenience and economy, but to avoid cheapening suffrage by its too frequent use.

Recounting the elections according to their character and dates they are as follows:

One Territorial, for Delegate to Congress, November 3, 1890.

One general, for commissioners to locate university land; for members of the legislative assembly; for county and precinct officers; for school trustees, and in addition several special elections for such trustees.

Twenty-six municipal, falling at different dates, namely, November 20 and December 8, 1890, and February 9, March 6, May 7, and August 8, 1891.

Total of elections, 34; total of persons elected, 744.

APPOINTEES.

All of the officers charged under the law with conducting these elections and their prerequisites were appointed by the Commission in the exercise of the power conferred on it by the ninth section of the Edmund's law. The appointees are distinguished under the Territorial law by the following titles, and consist of the following members:

Registrars of voters	345
Election judges	1,107
Canvassers of election returns	10
	1,462

The same number of certificates of election was issued by the Secretary of the Commission to the appointees, conformably to law.

Besides these details, the Commission saw that the board appointed for that purpose canvassed all the returns of the general election, except those pertaining to the members of the legislative assembly, which the Commission itself canvassed.

ELECTION LAW OF THE TERRITORY.

The ninth section of the Edmunds law, adopting the election law of the Territory as modified by that section, makes both conjunctively the basis of the election system of the Territory. Therefore, in order to a clear apprehension of what follows in this connection, it is material to quote, at least substantially, the pertinent provisions of those several enactments.

(1) The Territorial law provides for a general election to be held annually for the purpose of choosing all Territorial officers not otherwise provided for.

(2) The same law virtually constitutes the assessor of taxes in the several counties, *ex officio* an electoral registrar in his county, and invests him with power to appoint a deputy in and for each precinct therein.

(3) It required of the county registrar, in person or by deputy, to visit, on or before the first Monday of June, 1878, every dwelling house in each precinct of his county, and to place the name of every person therein on the registry of voters who desired it, and who should take the prescribed oath of electoral qualification. (See *post*, pages 13, 14, for substitute oath under the Edmunds-Tucker law.)

(4) The county registrar shall in 1878 and annually thereafter within the time limited for the assessment of taxes, take up the transcript of the preceding registration and revise it, to which end he shall visit each dwelling house in each precinct of his county and carefully inquire if any person whose name is on the registry list has died or removed from the particular precinct, or is otherwise disqualified as a voter, and in any such case he shall erase the name from the registry. Or, if he finds any person who is eligible to be registered whose name is not on the registry, he shall add the name of such person thereto upon his taking and subscribing the oath of electoral qualification.

(5) In the week commencing the first Monday in June in each year the county registrar shall, in person or by deputy, at his proper office enter the name of any voter omitted from the registry, if such person shall take and subscribe such oath.

(6) Any voter removing from one precinct to another in the same county may appear before the registrar of the former precinct at any time before the delivery of the registry to the clerk of the county court and have his name erased therefrom and registered in the latter precinct.

(7) Upon the completion of the registry for the county the registrar therefor shall in person or by deputy make out a list of the names of the registered voters in each precinct thereof in alphabetical order, and annually, on or before the 1st day of July,

deliver the same with the attendant affidavit of electoral qualification to the clerk of the county court.

(8) Annually after such delivery of electoral lists the clerk of the county court shall, whenever it becomes necessary to revise them or to add names thereto, deliver the same to the county registrar for that purpose. This done, the county registrar shall, in person or by deputy, in the week commencing the second Monday of September in 1878, and annually thereafter, enter on the registry the names of unregistered voters in the county, in the manner set forth above in paragraph 3. And upon the completion of such revision the county registrar shall in person, or by deputy, proceed as stated above in paragraph 7, and, having done so, he shall deliver the lists with attendant affidavits to the clerk of the county court on or before the 10th day of the next succeeding October.

(9) The clerk of the county court shall file and preserve all of the registry lists with their attendant affidavits and make two copies of each precinct list and cause one of them to be posted up at or near the polling place in the proper precinct at least 15 days before the contemplated election. The other copy he shall transmit to the judges of the election.

(10) The county clerk shall also cause notice to be posted up in three public places in each precinct in the county at least 15 days before the election, designating therein the time and place for holding the election. He shall also add to the registry list required to be posted at or near the polling place, notice to the public that the senior justice of the peace of the proper precinct will hear objections to the right of any person registered therein to vote, namely, until sunset of the fifth day before the election. Such objections must be made in writing by a qualified voter and be delivered by him to the justice, who shall thereupon issue notice to the person whose right is so challenged, designating in the notice the place, the day, and hour where and when the objection shall be heard and determined. The notice must be served or caused to be served by the person making the objection and returned with an indorsement showing how it was served. Upon the hearing, if the justice sustains the objection, he shall within three days before the election certify the name of the person whose right has been so denied to the judges thereof, who shall, before the opening of the polls, erase the name of such person from the registry list in their possession.

(11) The county court shall, at its first session in June in each year, appoint three capable and discreet persons to act as judges of general and special elections. Of these judges, one at least shall be of the political party that is in the minority at the last previous election, and every one of whom shall before entering upon his office take and subscribe an oath to faithfully execute the same and to studiously endeavor to prevent fraud, deceit, and abuse. In case any of the judges decline to serve or fail to appear in due time at the place for opening the polls, the voters, to the number of six first assembling at that place, may elect one judge or more to fill the vacancy or vacancies.

(12) Other provisions relate to the election judges acting as such, or as clerks of the election, to the mode of voting by ballot, the certification of election returns, the canvassing thereof by the county clerk associated with at least one member of the county court, and the issuing of certificates to the persons elected. (Comp. Laws, Utah, vol. 1, S. 238 *et seq.*)

In theory the foregoing provisions seem to be jealously regardful of suffrage as a right fundamental to representative government. How far the theory has failed in practice, under changed conditions, will be adverted to in the sequel.

Finally, under the Territorial law, both males and females who took and subscribed the oath of electoral qualification prescribed by it became entitled to be registered and to vote. Female suffrage rested, perhaps solely, on the oath so prescribed. So far as I am advised, there was no other statutory warrant for it. The conditions of electoral qualification specified in the oath as to males were that they should be adults, residents, citizens, and taxpayers. As to females, the same conditions obtained, except that they were not required to be taxpayers or citizens in the cases where they were the wives or daughters of citizens. (Com. Laws, Utah, vol. 1, p. 319.)

Another important consequence followed the oath—it opened the registry and the polls alike to polygamous and monogamous men and women and thus indirectly sanctioned polygamy and fortified it by an electorate whose numbers were thus approximately doubled.

CONGRESS INTERFERES.

To cut off this consequence and polygamy also, Congress, after long forbearance, proceeded legislatively on two different and distinct lines—one penal, the other civil. Proceeding penally, a succession of laws were enacted, the first being the act of July 8th, 1862, the Morrill law, which provides in its first section:

That every person having a husband or wife living, who shall marry another person, whether married or single, in a Territory of the United States * * * shall be adjudged guilty of bigamy, and upon conviction thereof shall be punished by a fine not exceeding five hundred dollars and by imprisonment for a term not exceeding five years: *Provided, nevertheless*, this section shall not extend to any person by reason of any former marriage whose husband or wife by such marriage shall have been absent for five successive years without being known to such person within that time to be living; nor to any person by reason of any former marriage which shall have been dissolved by the decree of any competent court; nor to any person by reason of any former marriage which shall have been annulled or pronounced void by the sentence or decree of any competent court on the ground of the nullity of the marriage contract.

The second section provides that the act "shall be so limited and construed as not to affect or interfere with the right to worship God according to the dictates of conscience."

Next, the Edmunds law, in its first section, substantially reiterates the above quotation from the first section of the Morrill law, and in its third section provides:

That if any male person in the Territory * * * hereafter cohabits with more than one woman he shall be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not more than three hundred dollars or by imprisonment for not more than six months, or by both said punishments in the discretion of the courts.

The sixth section provides:

That the President is hereby authorized to grant amnesty to such classes of offenders guilty of bigamy, polygamy, or unlawful cohabitation, before the passage of this act, on such conditions and under such limitations as he shall think proper; but no such amnesty shall have effect unless the conditions thereof shall be complied with.

Last, the Edmunds-Tucker law of March 3, 1887, provides in its third section:

That whoever commits adultery shall be punished by imprisonment in the penitentiary not exceeding three years; and when the act is committed between a married woman and a man who is unmarried, both parties to such act shall be deemed guilty of adultery; and when such act is committed between a married man and a woman that is unmarried the man shall be deemed guilty of adultery.

The fourth section provides:

That if any person related to another person within and not including the fourth degree of consanguinity, computed according to the rules of the civil law, shall marry or cohabit with or have sexual intercourse with such other person, knowing him or her to be within such degree of relationship, the person so offending shall be deemed guilty of incest, and, on conviction thereof, shall be punished by imprisonment in the penitentiary not less than three years and not more than fifteen years.

The fifth section provides:

That if any unmarried man or woman commit fornication, each of them shall be punished by imprisonment not exceeding six months, or by fine not exceeding one hundred dollars.

Proceeding on the line of civil legislation, Congress has imposed divers conditions affecting the right of suffrage eligibility for jury service, to hold office, and, withal has substituted Federal for Territorial agents in the conduct of elections in the Territory and their prerequisites. On this line the twenty-fourth section of the Edmunds-Tucker

law, saving the then existing conditions of age, residence, and citizenship in order to registration, adds numerous other conditions operating as civil disabilities, and incorporates the whole in the oath of eligibility it prescribes.

The section among other things provides that—

No person shall be entitled to vote * * * or be capable of jury service or hold any office of trust or emolument in said Territory who shall not have taken the oath * * * aforesaid.

Again—

No person who shall have been convicted of any crime under this act [or the act which it amends] or who shall be a polygamist or who shall associate or cohabit polygamously with persons of the other sex shall be entitled to vote * * * or be capable of jury service or to hold any office of trust or emolument in said Territory.

The twentieth section absolutely and unqualifiedly abolishes female suffrage.

Concerning election agencies, the ninth section of the Edmunds law provides—

That all the registration and election offices of every description in the Territory of Utah are hereby declared vacant, and each and every duty relating to the registration of voters, the conduct of elections, the receiving or rejection of votes, and the canvassing and returning of the same, and issuing of certificates or other evidences of election in said Territory, shall be performed under the existing laws of the United States and of said Territory by proper persons who shall be appointed to execute such offices and perform such duties by a board of five persons, to be appointed by the President, by and with the advice and consent of the Senate * * *: *Provided*, That such board * * * shall not exclude any person otherwise eligible to vote from the polls on account of any opinion such person may entertain on the subject of bigamy or polygamy, nor shall they refuse to count any such vote on account of the opinion of the person on that subject.

Under this section the board or Commission has, from time to time, appointed officers to succeed to the functions and titles of their predecessors under the Territorial law, namely, registrars of voters, judges of elections, and canvassers of election returns, and as the Territorial law, as has been remarked, combines with this section in forming the election system of the Territory, it is needful to consult each in determining the validity of any act of the Commission or of its appointees.

Recurring to the first section of the Morrill law and to the eighth section of the Edmunds law, it falls in the order of the discussion to state that grave questions of constitutional law have been raised upon each: first, whether it was competent to Congress to penally inhibit plural marriages, inasmuch as some of the Mormons, at least, held such marriages to be a tenet of their religion; second, whether it was competent to Congress to abolish or abridge, as to such persons, the right of suffrage as they had theretofore enjoyed it under the law.

The first question came before the Supreme Court of the United States in 1888 in the case of *Reynolds v. The United States*. The court in considering it, among other things, said:

In our opinion, the statute * * * is within the legislative power of Congress. It is constitutional and valid as prescribing a rule of action for all those residing in the Territories or other places over which the United States have control. This being so, the only question which remains is whether those who make polygamy a part of their religion are excepted from the operation of the statute. If they are, then those who do not make polygamy a part of their religious belief may be found guilty and punished, while those who do must be acquitted and go free. This would be introducing a new element into criminal law. Laws are made for the government of actions, and while they can not interfere with mere religious belief and opinion they may with practices. So here, as a law for the organization of society under the exclusive dominion of the United States, it is provided that plural marriages shall not be allowed. Can a man excuse his practices to the contrary because of his religious

belief? To permit this would be to make the professed doctrine of religious belief superior to the laws of the land and in effect to permit every citizen to become a law unto himself. Government could exist only in name under such circumstances. (98 U. S., pp. 38 *et seq.*)

The second question came before the same court, in 1884, in the case of *Murphy v. Ramsey* and others. In considering it the court had occasion to note the distinction between criminal penalties and civil disabilities; also to recognize the natural as well as the legal capacity of a polygamist to cease to be one. Among other things the court said:

The counsel for the appellant in argument seems to question the constitutional power of Congress to pass the act * * * so far as it abridges the right of electors in this Territory under previous laws. But that question, we think, is no longer open to discussion; it has passed the stage of controversy into final judgment.

Upon this construction the statute is not open to the objection that it is an *ex post facto* law. It does not seek in this section (8) and by the penalty of disfranchisement to operate as a punishment upon any offense at all.

It is not, therefore, because the person has committed the offense of bigamy at some previous time in violation of some existing statute, and as an additional punishment for its commission, that he is disfranchised by the act of March 22, 1882, nor because he is guilty of the offense as defined and punished by the terms of that act; but because, having at some time entered into a bigamous or polygamous relation by marriage with a second or third wife while the first was living, he still maintains it and has not dissolved it, although for the time being he restricts actual cohabitation to one.

The disfranchisement operates on the existing state and condition of the person, and not upon a past offense. It is therefore not retrospective. He alone is deprived of his vote who, when he offers to register, is then actually cohabiting with more than one woman. Disfranchisement is not prescribed as a penalty for being guilty of the crime and offense of polygamy; for, as has been said, that offense consists in the fact of unlawful marriage, and the prosecution against the offender is barred by the lapse of three years.

The words "bigamist" and "polygamist" evidently are not used in the statute in the sense of describing those who entertain the opinion that bigamy ought to be tolerated as a practice not incompatible with the good order of society, the welfare of the race, and a true code of morality, if such there be, because in the proviso of the ninth section of the act it is expressly declared that no person shall be excluded from the polls or be denied his vote on account of any opinion on the subject. (114 U. S., pp. 162 *et seq.*)

Following the authority of *Murphy v. Ramsey* and others, Chief Justice Zane, as justice of the district court held at Salt Lake City, said, in the case of the *United States v. Bennett*, that—

The law did not apply to those who went into polygamy before there was a law against it, but to those who were actually in the relationship. A man must actually have a plurality of wives to be a polygamist. The fact of cohabitation is not a feature in determining the meaning of the term. A man ceases to be a polygamist when he fully and finally terminates the relationship. The way to accomplish that is not pointed out. * * * Can the relationship exist when the parties have not only ceased to cohabit, but have separated in good faith? That is, does it exist because of the former relationship? To maintain a relationship requires some act of the mind to continue the condition. * * * The Supreme Court holds to the idea that there must be a recognition. * * * The question of good faith will be for the jury to determine. The section regarding amnesty or pardon does not seem to have any connection with the question. The parties may obtain amnesty and yet continue the polygamous relation.

The conclusions to be drawn from the provisions of the statute quoted, and from their authoritative exposition and application by the courts, seem to be—

(1) That disfranchisement is no part of the penalty annexed to any sexual offense committed in violation of any of those provisions.

(2) That such penalties consist solely of fine or imprisonment, or of both.

(3) As a consequence that disfranchisement is merely an electoral regulation and exclusion.

(4) That the penalty or punishment inflicted for inhibited criminal acts

extends only to such persons who, being otherwise eligible to be registered, had entered into the polygamous relations and actually continue it, or to whosoever, although protected by lapse of time from prosecution as a polygamist or bigamist, still cohabits or associates polygamously or bigamously with persons of the other sex; or to whosoever has been convicted of any inhibited sexual offense and has not been amnestied or pardoned. On the contrary whoever is not so disfranchised being otherwise eligible thereto, may be registered and vote.

(5) Any person actually maintaining the bigamous or polygamous relation at the time when he offers his name for registration is by such relation disqualified to be registered, or to vote, or hold office, or perform jury service, and that although he may have formed such relation before there was any law against it.

Proceeding on these conclusions of law and fact judicially determined, the Commission has from time to time prepared circulars advisory to them and caused them to be printed and issued to the registration and election officers. Have the advisory circulars been heeded?

This is an important practical question.

Answering it, we are gratified to say that generally they have been, especially in the rural districts, while we regret to say that they have not always been in some of the larger cities. Particularly in the latter, not infrequently, according to what seems to be trustworthy reports, registrars have denied registration to eligible persons, or have stricken the names of such persons from the registry simply upon the ground that they had, at a former time, contracted plural marriages, and must therefore unavoidably continue to be polygamists until death, pardon, or amnesty comes to relieve them. In this way the law and its judicial exposition to the contrary were officiously overruled in one or more precincts in Salt Lake City, while the act was attempted to be justified by a different version of both. This version impliedly, if not in terms, denies the legal or natural capacity of the polygamist to cease be one, or his capacity mentally, morally, or physically for sexual reformation. It fatalistically holds that once a polygamist always a polygamist, unless death, pardon, or amnesty intervenes. It damns the unfortunate alike if he does or he don't.

In another instance, it appeared in the case of a contested election brought before Justice Anderson, of one of the district courts, that persons had been improperly denied registration, or that their names had been improperly stricken from the registry, and that the votes of such persons had been improperly refused, and, in the same case, it appeared that personators of others had been knowingly permitted to vote. Indeed, such was the outcry of complaint that the Commission, desiring to obviate it, invited the registrars in Salt Lake City to a personal interview at its office and, among other remedial endeavors, published the following notice, dated July 31, 1890:

Whereas complaints have been made to the Utah Commission by persons who claim that they are citizens of the Territory of Utah and have been residents of their respective counties the required length of time to be registered voters, that they have been registered heretofore and have regularly voted in the annual elections for Territorial and county officers; that their names without any fault of theirs have been stricken off and do not appear upon the registration list for the ensuing August election, and that they are not disfranchised by any act of Congress.

Therefore, in the opinion of the Commission, whenever it appears that the name of a voter has been omitted from the registry list without fault on his part, and such voter is not disfranchised by any act of Congress, * * * the name of such voter should of right be reinstated by the deputy registrar of the proper precinct and he be allowed to vote at the ensuing election. * * *

The source of these abuses lies in part in the restricted power of the Commission, which, as a matter of law and fact, is established by the Supreme Court of the United States, in *Murphy v. Ramsey* and others, *supra*. In that case the court said :

The ninth section of the act of March 22, 1882, providing for the appointment and prescribing the duties and powers of the board, shows that they have no functions whatever in respect to the registration of voters, except the appointment of officers in place of those previously authorized, whose offices are by that section of the law declared vacant, and the persons appointed to succeed them are not subject to the discretion and control of the board, but are required, until other provision be made by the legislative assembly of the Territory, to perform all the duties relating to the registration of voters * * * under the existing laws of the United States and of said Territory. The statutory powers of the board are limited to the appointment of registration and election officers.

Thus judicially assured of their independence, registrars and judges of election have occasionally, in times of party excitement, disregarded the well-considered opinions of the Commission upon questions affecting their duties. In such cases there is no remedy other than an assumed and indirect one following the exercise of the power of the removal as incident to the power of appointment; nor is that resort free in all instances from countervailing disadvantages. For example, the replacing of one registrar with another when the former was pursuing his house to house canvass, or while he was sitting judicially to hear objections to the right of a person to have his name retained on the registry, might in either such case give rise to embarrassing complications. For to replace one or more election judges with another or others while the election was proceeding might be attended with the same consequences, nay, might vitiate the election.

The Territorial law bounding the authority of registrars by precinct lines bespeaks a policy of local administration. Hence, the registrar hearing objections to the right of continued registration must need be a resident of the precinct in which the hearing takes place; therefore, analogically, the person making the objection should likewise be a resident of it, and for the further reason, because, as such, he would presumably be better informed respecting the right challenged than if he were not. Yet it has occurred, in the stress of party rivalry, that non-residents of the precinct, perhaps strangers to it and personally irresponsible, have, as the agents of political committees, caused to be presented numerous such objections, to the vexation and hindrance of electors and the obstruction of the course of the law.

An adequate and effective remedy for these abuses claims serious attention, and as conducive thereto, the Commission, in the event of its continuance, may be understood as suggesting an amendment of the existing laws, covering and giving effect to the following propositions :

(1) That the Commission shall be authorized to issue instructions, conformably to the conditions of such authorization, which shall be binding on the registrars, or that the functions of the registrars shall be limited to acts of registration and to the taking of affidavits of electoral qualification, and transmitting the evidences of the same, as now required by law; or, that the election judges shall, exclusively, be authorized to deal with all objections or challenges to the right of persons to be registered or to vote; or, that an intermediate tribunal, between the election judges and the registrars, shall be established with exclusive jurisdiction for that purpose.

(2) That any willful act of the registrar improperly hindering, or any neglect of duty by him delaying the lawful effectuation of the right to be registered or to vote, or any willful or unauthorized act committed

or omitted by him in his capacity as a registrar, shall, in any such case, be deemed a punishable offense.

POLYGAMY.

Having discussed the institution and practice of polygamy as affecting the individual, the family, society, and the State in a former report, I shall add nothing here on that subject except to say that my views as expressed in that report remain unchanged. My immediate purpose is to notice the decrease of polygamous marriages in Utah to their present point of virtual cessation. The evidences of this fact, direct and indirect, moral and official, are as numerous as they should be convincing. I pause to dwell briefly on a few of them.

In 1887 a convention of delegates chosen with remarkable unanimity by a Mormon constituency in Utah, memorialized Congress to admit the Territory as a State under a constitution framed by the convention which inhibited bigamy and polygamy and any repeal or change of the inhibition without the approval thereof by Congress, and which also suspended the operation of any act of pardon in behalf of any person convicted of either of those offenses unless such act had been approved by the President of the United States.

Whatever the consistency of those provisions with the fundamental doctrines of the political equality of the States under the Federal Constitution, still the provisions are important as manifesting in the most solemn manner a disposition on the part of the Mormons in Utah to recede from polygamous practices.

The legislative assembly of the Territory, at its session in 1890, resolved that it was "in favor of a just, humane, and impartial enforcement of the laws" against sexual offenses "in the same manner that other criminal laws are enforced under the Constitution and laws of our country to the end that such offense may be effectually prevented." At the same session the assembly passed a law "regulating marriages" elaborately devised and bristling with penalties against any inroad by polygamy.

In 1890 ecclesiastics and laymen of the Mormon Church resident in Utah, assembled in imposing numbers at the Mormon tabernacle in Salt Lake City, and there, through President Woodruff, as the head of the Mormon Church, deliberately avowed their dissent to future plural marriages, and their purpose to obey the laws forbidding them.

And as affecting the question of dictation by the head of the Mormon Church, in political affairs, it may be said that in the recent general election several of the prominent dignitaries of the church were defeated at the polls by lay members of it.

Early in the present year (1891) the Mormon electors composing the People's party declined to make nominations for public offices and, disbanding that party, united according to their inclinations with the Democrats or Republicans seceding from the Liberal party, in organizing distinctive Democratic and Republican parties in the Territory. The Liberal party alone of former political organizations in the Territory still survives. These facts, while marking the dissolution of the People's party and the rise of new parties, also forecast the early dissolution of the Liberal party as an event inevitable in the order of progress.

Thus the Territory under new conditions is about to leave behind the bitter feuds that so long embroiled its people and retarded their homogeneity and pacification. Thus the Territory has at length arrived at a point promising permanent deliverance from the toils

of bigotry and factions upon the higher plane of concert with the national parties upon the lines of their competing issues and for the common welfare. This advance has been attended with more delicacy and difficulty than sometimes falls to the lot of an armed array, for in the one case the tardy persuasion of law and reason was the only resource, whereas in the other the sword is the ready and direct resort.

Reverting to the election returns it will be seen that the Democratic and Republican parties, respectively, were generally stronger in the rural districts than the Liberal party; that the Liberal party lost the city of Ogden, a railroad center, and formerly one of its strongholds, but maintained its numerical superiority, particularly in Salt Lake and Summit Counties, the capital of the former being a commercial center, the capital of the latter being a mining center. It also appears that the whole number of votes cast in the strenuous contest for members for the legislative council was 28,039, of which it appears the Democrats cast 13,809, the distinctive Republicans 6,785, the Liberals 7,396, scattering 47.

Now, premising these figures and assuming that the body of the Liberals had consistently, as professed Republicans, united with the distinctive Republicans, and that a number of Republican Mormons had done the same, who did not, lest by so doing they should indirectly promote Liberal success and consequently their own disfranchisement—premissing these conditions as real, or hypothetically reasonable, would not the election as between the Republicans and Democrats have been at least doubtful? Well-informed Republicans and Democrats in the Territory have said so. Certainly, as a fact, the total of the votes cast by distinctive Republicans and the Liberals exceeds by 370 the total of the votes cast by Democrats for councilors.

The official evidence of the decrease of plural marriages since the 1st day of September, 1890, comes through the district judges in the Territory.

Justice Blackburn reports that there has been but one conviction had in that time for polygamy in the district court held at the city of Provo.

Justice Miner reports only one such conviction had in the district court in the city of Ogden.

Justice Zane reports one conviction had for polygamy in the district court held at Salt Lake City, and that that conviction was not of a Mormon.

Justice Anderson reports one conviction had for that offense in the district court held at Beaver City.

These comprise all the districts in the Territory. The greatest number of convictions had for any sexual offense in the time stated was probably for unlawful cohabitation, that offense being in many, if not in most cases, a relic of polygamy made punishable under the statute when lapse of time had interposed a bar to the punishment of the offender as a polygamist, and in a number of such cases conviction and punishment followed confession of guilt as satisfying the law and promising future obedience to it.

True the number of indictments found exceeds the number of convictions had, but neither indictments nor the extra official accusations of registrars or the proceedings of examining magistrates import guilt or a presumption of it. A different rule, holding an accusation equivalent to a conviction, would be subversive of personal security and civil liberty. It would license malice to do its worst. In fact a number of the indictments here referred to were actually dismissed, while upon others the persons accused were on trial acquitted.

These proofs of social reformation are due to various causes—to the school, the press, to tillage, mining, the arts, trade, and, not least, to the laws, whose inspiration and aim as happily interpreted by the President was and is to consecrate the one wife as the uncrowned queen of the home. Again, the reformation is an evolution of progress. The Mormons have emerged from the condition of fugitives secluded in the fastnesses of a foreign land to the touch and movement of the general world. Many if not most of the earlier Mormon colonists are dead, while their children have succeeded, under the flag of the United States, to their places. The new generation, reënforced by non-Mormon immigrants, form a common host which has spread far and wide over the valleys of Utah, naturally dry and arid, and by painstaking toil have irrigated and tilled them to fruitfulness and luxuriance. More, this host has utilized the rugged mountains as pastures for grazing kine or as quarries of gray and red granite and sandstone, or has pierced them with the pick and the drill for their treasures of gold and silver, copper and lead, iron and coal. Yet, even with all this, something more needs to be done to assure the material welfare of the people of the Territory, and generally, of the intermountain region. The waters of the rivers, lakes, cañons, and other mountain streams should be made tributary to capacious and durable reservoirs for regulated distribution for all useful purposes. Therefore I think it would be wise that Congress should sanction, by law, the recommendation of the President that the unreserved and unappropriated lands of the United States, lying in the naturally arid States and Territories, should be ceded to them, under proper stipulations, in aid of those purposes.

DISFRANCHISEMENT.

My induction from all the premises is that it would not be either just or politic to extend by law the range of existing civil disabilities indiscriminately to all of the Mormons. That would be to punish the innocent with the guilty without judicial inquiry and sentence—to substitute the legislative for the judicial authority, contrary to the principle and spirit of the Anglo Saxon and American institutions. Practically it would leave the Mormons and their posterity professing the same religious belief subject to taxation and military service without a voice upon the question of taxation or of war. It would degrade them as a class. This would be an anomaly in a popular government. In like cases another step downward has ended in servitude. All along the line of such descent lurks the spirit of revenge awaiting its opportunity. The proscription of classes is the rock upon which famous republics of the past struck and perished.

Disfranchisement as a precedent opens the way to disfranchisement as a rule. If the legislature may disfranchise part of the community may it not disfranchise the whole of it and become imperial? A historic statesman of England said, in words echoing down the years, that it was not competent to any political or civil authority to condemn and punish collectively any body of people.

What then is the need? Only "to let well enough alone." Punish the individual by a due process for his criminal acts, but for his belief or opinion, never. This is the distinction of right and reason—a distinction divine. Upon it hang alike social and civil order and the empire of thought and genius. It is the rampart of the State, of the man, and of the citizen.

JOHN A. MCCLERNAND.

REPORT

OF

THE GOVERNOR OF OKLAHOMA.

TERRITORY OF OKLAHOMA, EXECUTIVE OFFICE,
Guthrie, October 9, 1891.

Hon. JOHN W. NOBLE,
Secretary of the Interior,
Washington, D. C.:

DEAR SIR: I arrived in this city on May 22, 1890, after my appointment as governor on the 15th of the same month, and found county seats established without county boundaries which, under your instructions, I proceeded to define.

Finding no civil officers to carry out the provisions of the Nebraska law, under which we were to operate in pursuance of the organic act, I at once appointed the county officers for the various counties.

POPULATION 1890.

For the purpose of ascertaining the population, under the provisions of said act, I next selected and appointed enumerators, who, I think, very carefully performed their work, when the population of the Territory was ascertained to be 60,417, aside from Greer County, as follows:

First county (now Logan).....	14,254
Second county (now Oklahoma).....	12,794
Third county (now Cleveland).....	7,011
Fourth county (now Canadian).....	7,703
Fifth county (now Kingfisher).....	8,837
Sixth county (now Payne).....	6,836
Seventh county (now Beaver).....	2,982

Divided as follows:

Whites.....	57,117
Colored.....	3,289
Chinese.....	11
Males.....	34,464
Females.....	25,953
Guthrie, county seat of Logan County.....	5,884
Oklahoma City, county seat of Oklahoma County.....	5,086
Stillwater, county seat of Payne County.....	625
El Reno, county seat of Canadian County.....	519
Norman, county seat of Cleveland County.....	764
Kingfisher, county seat of Kingfisher County.....	1,278
Beaver City, county seat of Beaver County (not separately enumerated).....	

LEGISLATIVE ASSEMBLY.

An apportionment for legislative purposes was made, election districts defined, election officers appointed, and on the 5th day of August, 1891, an election was held for the purpose of electing members of the first legislative assembly of the Territory. Unfortunately, two members elect died before a call was made for the members to assemble, viz: Representative Burke, of Oklahoma County, and Representative Reynolds, of the Territory-at-large (excepting Beaver County); so that a second election was made necessary, which was held without changing the political results, and on August 27, 1890, after proper notice, the first legislative assembly of the Territory met for a 120 days' session at Guthrie; but until within a very few days of the time fixed for the session to close, comparatively little was accomplished. However, in the short time remaining, by unusual diligence and judicious selection, a very fair code of laws was enacted.

SETTLEMENT OF LANDS.

Upon my arrival in the Territory (a year and a month after it had been opened to settlement) I found prosperous little cities and towns and every quarter section of land opened to settlement was occupied; in too many instances there were two settlers claiming the same quarter, and in some instances as many as five were upon a quarter, all claiming it. It was at this time I was first made aware of the real application of the word "Sooner," meaning here "the man or woman claiming land who had come into the Territory prior to the time fixed by the President's proclamation, April 22, 1889." The law, or proclamation of the President, enabling settlers to enter the Territory did not come in time to permit of their growing crops in 1889. The year 1890 being an unusually dry one, not only in Oklahoma but in many of the older States, was fatal to the growing crops for that year, which, taken with the fact that a large portion of the population had been driven out of southwestern Kansas and northwestern Texas on account of drought, or had been kept waiting on the border until they had exhausted their resources, caused great destitution and suffering and forced us to make an appeal to Congress for assistance, which met with generous response, and which, with the assistance of the railroads leading into the Territory and the free labor and contributions of many of its citizens, enabled us to get along until the bountiful crop of garden and field products of the present year were ready for use.

SEED WHEAT FURNISHED BY RAILROADS.

It is proper for me to mention in this connection that on account of the great scarcity of wheat and on account of the lack of means in the hands of the settlers to buy it I appealed to the management of the Atchison, Topeka and Santa Fé and to the Chicago and Rock Island railroads to each send us \$10,000 worth of wheat, to be paid for when the crop was harvested this year, and they generously and promptly responded and furnished the wheat along their respective lines to the settlers at actual cost, free transportation, and without interest. I am pleased to remark that the companies are highly gratified at the promptness with which these obligations have been met, and the settlers are (and ought to be) unusually gratified; a majority of whom, on account of being without feed for their stock, pastured the growing wheat up to as late as the 1st of April—in a few instances later—and by June 1 to June 10 put in shock a crop yielding from 20 to 30 bushels to the acre.

AGRICULTURAL PRODUCTS.

It may be well for me to state here that corn and cotton, and in fact all kinds of agricultural products planted and cared for, have yielded bountifully. There is no doubt at all but that this is an excellent agricultural country, and for fruit and berries exceptionally good. The lands are being developed as fast as the settlers are able to do so.

STOCK-RAISING.

Stock-raising is not carried on to any great extent up to the present time, excepting in Beaver County (formerly No-Man's-Land), and where (until this year) it has been supposed it was too dry for agricultural purposes; and it is my opinion now that we will have to wait a little season before it will do to claim Beaver County as safe for agricultural purposes, the rain belt not having extended quite so far west as to be relied upon; however, stock of all kinds do unusually well here, more especially horses and cattle. I have not seen or heard of a horse with the "heaves," nor is there a disease of any kind among them; so that it is fair to conclude that as fast as our people become able to do so, stock-raising will be carried on hand in hand with agriculture.

MINING.

Little attention has been given to mining up to the present time. Mineral paint of superior quality has been found; also coal, asphaltum, and coal oil. Some very fine specimens of lead and silver ore have been shown me, which were found in the Territory, in that portion not open to settlement, but which ought to be and at a very early period.

TIMBER.

While Oklahoma can not be classed as in the lumber region, we have enough of timber (excepting pine) for all purposes, and, if properly protected, to supply us for years to come, comprising walnut, oak, pecan, hickory, and in fact in different parts of the Territory may be found nearly all varieties of timber, and we have only to plant and keep the fires from sweeping through the country to have within a very few years beautiful groves of thrifty trees.

LEASING SCHOOL LANDS.

By direction of the Secretary of the Interior, I have, under section 36 of act approved March 3, 1891, leased for 3 years 584 of the 656 quarter sections of school lands in the six counties aside from Beaver, realizing therefor \$4,536.82 in cash, and \$47,642.85 by note with approved security. Only about 16 quarter sections have been leased in Beaver County, and those at a very small rental, for the reason, principally, that they are pasture lands rather than agricultural, and that very few people care to bother with so small a tract as 160 acres, so that I agree with the secretary of the Territory, and recommend that authority be given to rent as much as a section of school land in Beaver County. The leasing of the lands in the Territory proper (more particularly) will yield a considerable revenue for school purposes, which will be greatly needed for a few years to come, and at the same time the cultivation will materially increase their value. The running of these lands to pasture by the Indians so many years has in no wise improved them; the plow and the hoe of the white man will.

SCHOOL FUND, AND WHY NEW COUNTIES SHOULD BE ASSISTED.

Under section 26, organic act, approved May 2, 1890, \$50,000 was appropriated "to be expended by the governor in temporary support and aid of common-school education in said Territory as soon as a system of public schools shall have been established by the legislative assembly." The school system was not provided for by the legislature until late in its session, and as a consequence several districts in the Territory failed to organize in time to have any schools, and others only short terms; \$37,381 was expended for the salaries of teachers, and \$182 for blanks, vouchers, certificates, etc., leaving a balance on hand of \$12,237, which will go to teachers in districts where they had no schools, or where they did not have full terms. It was decided best to not permit this \$50,000 to go towards building schoolhouses, payment of trustees, school directors, county superintendents, or in fact for any purpose other than the pay of teachers, and for the necessary blanks to be used in connection with the schools by the secretary of the Territory, who pays out the money at my request and subject to my approval.

I am very sorry indeed that provision was not made by Congress for helping the settlers support the common schools in the Sac, Fox, Iowa, Pottawatomie, and Absentee Shawnee lands recently thrown open to settlement, for those settlers are not only poor people, as were those who came into this part of the Territory, but they will have the additional burden of caring for the Indian children in great numbers who may attend the common schools, and notwithstanding the fact that the lands or personal property of these Indians may not be taxed to help support the schools. This will be true with reference to the Cheyenne, Arapahoe, and Kickapoo country, which, it is hoped, will be thrown open to settlement early next spring. It seems to me there is more reason for helping the settlers support the schools in these lands than there was in Oklahoma proper, for here on every quarter is a white settler who will pay tax, while on the Indian lands recently treated for, that have been (or soon will be) thrown open to settlement, a large proportion of the most valuable quarter sections are occupied by Indians. I earnestly recommend that this matter be brought to the attention of Congress with the hope that proper relief may be granted.

CHEROKEE OUTLET.

Nothing I think of would be more gratifying to the people of not only Oklahoma, but to those of Arkansas, Missouri, Texas, Kansas, etc., who are anxious for homes, than would be the opening of the Cherokee Outlet; there is every reason why it should be thrown open to settlement, and none (that I know of) why it should not be. If the commission created by Congress shall fail to treat with the Cherokees for these lands, and shall so report to Congress during its next session, I trust Congress may enact a law that will open them. Should Congress fail to do so, from any cause, I earnestly hope the President may declare them open by proclamation. Forbidding the use of these lands for "cow pasture" or for "quarry purposes" is a long step in the right direction and highly appreciated by the home-seeker. If they may be bought "for the use of friendly Indians at 47 cents an acre" from the Cherokees, I see no reason why the Cherokees, 70 miles away, should object to white people settling them at the same price, and if they do object I see no reason why we should not take them anyhow, at not exceeding the above price. From the west line of the Cherokee country to the west line of the lands sold to the Poncas, Otoes, Missouri.

Tonkawas, Pawnees, Kansas, and Osages by the Cherokees is 70 miles, thus cutting themselves off from the unsold portion by this distance, and utterly abandoning its use for the purpose intended by the treaty.

OPENING TOWN SITES.

I hope before any other lands are thrown open to settlement the town sites will be carefully selected, surveyed, platted, and published, and I urgently recommend a different mode of opening town sites to settlement. At the recent opening of Tecumseh and Chandler there were at least five thousand people at each place waiting for the signal to be given for entering said town sites containing twenty-four hundred lots, good and bad. A very large proportion of those intending to enter the sites were anxious to go in on foot, to avoid the danger incident to riding in on horseback or in wagons and vehicles of various kinds; but there is no law to compel them to do so or for punishing them if they did so had they been ordered not to; one man was killed by his own horse falling on him; others were more or less injured, generally (if not altogether) the horseman by his own horse; but the real settlers are in too many instances deterred from attempting to get a lot or a home from the very fact that horsemen are allowed to ride in.

Every man (and woman for that matter) who can be at these openings and enjoy the excitement is there, hoping in the mad rush he or she may get a lot, or a block of lots, and sell to some party really intending to settle. Lawyers without clients abound; bankers without banks or capital are there; real-estate speculators without customers; gamblers, whisky-peddlers, and boot-leggers, all before the opening are there to ply their vocations, and where the land is opened to settlement before the town site, the settler who has gone upon his land and made "substantial improvements" (by cutting down a small tree and using the limbs for three sides, and the body, or trunk, for the other) is on the ground ready to join in the mad race with all these before named, against the real settler, who intends to make a home on the site and who generally gets a home there by paying for it. In short, I think if the lots were sold at even a low valuation, those who really intend to settle for business or for a home may, by getting together, buy their property at a reasonable price, and those who go there for speculative purposes may take their chances.

A limit could be fixed to the number of lots a party may have, the same as now, with the condition to improve it, etc., as now; money derived from the sale of lots, it should be provided, must first go to the improvement of streets and digging town wells; the balance, after paying necessary expenses, etc., as now, should go into the school fund. This plan would, by whatever amount the speculator puts in, be a gain to the town either by the improvements before alluded to, or by the increase of its school fund. The class of men hovering about the town sites at the opening of these lands for settlement, for speculative purposes, are not confined to Oklahoma by any means; in fact, comparatively few of them are residents of the Territory, but it seems to be a business with a large class of "nothing-else-to-do" people to attend these openings, from far and near.

LANDS TREATED FOR NOT OPEN TO SETTLEMENT.

On account of a great many of the Indians refusing to take their allotments, much delay has been caused in the allotting of lands to the Cheyennes and Arapahoes, and I am informed that the appropriation

for making these allotments is practically exhausted. Unless it is possible to make other arrangements to throw these lands open to settlement early next spring so that settlers may raise a crop next year, it will mean great hardship, destitution, sickness, and death among the hundreds of settlers who have been along its borders for weeks, and in many instances months, waiting for homes; they are being joined by hundreds more, who have been waiting around the border of the lands on the east recently opened to settlement, for months, to get homes there, but on account of there not being nearly as many quarter sections as there were settlers they were disappointed. On account of treaties having been made and published to the country, these settlers had a right to expect they might settle new homes in the Territory this fall; to keep them waiting until spring will be sad enough to many of them, but to keep them waiting still a year longer (as they will be unless arrangements are made for continuing the allotments) will be cruelty in the extreme; they have broken up their homes back East, or South, or North, and in many instances they are now unable to return if they desire to do so, and they would be afraid to go away not knowing when the lands will be opened. If there ever was an emergency demanding prompt action I am sure there is one upon us here, and it is not at all likely that Congress will fail to recognize this condition of affairs and sustain any necessary action on your part. The Indians are now wanting their allotments, and those who did not join in refusing to take them, or were kept from taking them through fear of violence, have a right to them under the terms of the treaty, and it is important for them to get their new homes and enter upon the new order of things contemplated for them. I am sure early and prompt relief will be given.

PRESENT POPULATION.

Since the enumeration in 1890 there has been a constant influx of people; 600 quarter sections of school lands have been settled upon by not less than 2,500 souls; two large counties on the east have been opened to settlement and, so far as I am advised, every quarter section taken, and it is safe to say there are 10,000 people there now; and by early spring, when the settlers' families have joined them, the population will have reached 15,000. Families have been joining the settlers in the Territory proper, and there are quite as many people here now waiting for homes as there were in 1890; so that I feel justified in saying that our population is not under 80,000.

I wish to testify to the fact that the citizens of Oklahoma are, as a people, unusually intelligent, above the average in education, generous, industrious, and God-fearing.

I hand you with this a report by the secretary of the Territory and by the Territorial auditor, the latter comprising the commerce on the Rock Island Railroad; that of the Santa Fé (traversing considerable more territory, and being a through road, greatly exceeds that of the Rock Island), asked for, has not been received; a second request has been made for it, and I hope it may reach you in time for use.

Very respectfully,

GEO. W. STEELE,
Governor.

APPENDIX.

EXHIBIT 1.

TERRITORY OF OKLAHOMA, SECRETARY'S OFFICE,
Guthrie, September 11, 1891.

His Excellency GEORGE W. STEELE,
Governor of the Territory of Oklahoma:

SIR: In reply to your communication of the 24th ultimo I submit items upon the subjects herewith stated which come within the scope of this office.

SCHOOL LANDS.

I find by reference to papers on file in this office that there has been, in round numbers, 600 quarter sections leased; that 584 were leased in the six counties within Oklahoma proper. As there are 656 quarter-sections in these six counties, this would leave 76 quarters yet unleased, but it is safe to say they are inferior quarters, as the best were first sought after. For the entire leasing there has been realized in cash \$4,536.82, in notes with securities, \$47,642.85, making a total of \$52,179.67 which will be added to the school fund of the Territory.

I beg to call your attention to the fact that a small amount of the lands in Beaver County have not yet been leased, the reasons for which seem to be that the principal business for which they can be used in that county is stock raising, and as the rules of the Department only allow the leasing of 160 acres to any one person, it is of little account to them for the purposes for which it is used. I confidently believe if the lands could be leased in sections, or even several sections to one person, in that county, they would be more in demand and a much larger revenue could be derived for the school fund.

LEGISLATIVE.

The first session of the legislative assembly of Oklahoma Territory convened on the 27th day of August, 1890, and remained in session 120 days. All the laws of the Territory had to be enacted during the session, as the Nebraska laws placed over us by the organic act expired upon the close of the first session of the legislature of the Territory. The work was very large for the time, and considering the fact that the members of the legislature were unacquainted with each other, and coming from so many different States, with the prejudices of home laws, a very large amount of useful work was done during the session; the volume consists of 1,318 pages, as large as many of the States.

The laws were taken largely from those of other States and in some instances may conflict, yet in the main they were well selected and reflect much credit on the members of that body.

A compiling commission was provided for by law of the legislature with allowing them only 45 days in which to arrange the laws for publication. The time was not long enough for the work. The commission consisted of the following-named persons: Will T. Little, on the part of the United States; Leonard G. Pitman, from the council; and Robert J. Barker, from the house, with W. W. Asher as clerk, and Miss F. L. Hitchcock, typewriter and stenographer.

The commission were to work under the supervision of the secretary of the Territory, and I desire to say that they did all they could to perfect the work given them in the time specified, working from 12 to 18 hours a day.

With some few exceptions the work was well done, but the time was too short and the appropriation soon exhausted and some things had to necessarily be left incomplete. I much regret that a better index was not prepared, but before it was reached in the work the time allowed had expired and the money provided for payment was

all exhausted. The commission worked some time after the expiration of the time allowed without pay, but the clamor of the people for the laws became so great that a complete index was abandoned, and the work sent to the public in the best form possible.

It will devolve upon the next legislature to correct the defects found in this first work of a legislative character in the Territory. Taking the whole work, with the circumstances surrounding the creation, preparation and publishing, it is certainly creditable to the persons engaged on it either as legislators, compilers, or publishers.

The appropriation of the United States for the expenses of the first session of the legislative assembly was \$40,000, which sum has been entirely exhausted.

Statement of the Federal appropriation for the public schools of Oklahoma Territory.

Amount appropriated	\$50,000
Requisition on United States Treasury for following expenses :	
Mar. 25. Oklahoma News Publishing Company, 2,000 vouchers	\$20
Mar. 25. State Capital Printing Company, 4,500 certificates	45
Mar. 25. State Capital Printing Company, 1,500 vouchers	15
Apr. 11. Oklahoma News Publishing Company, school blanks	27
May 19. Oklahoma News Publishing Company, 2,500 vouchers	25
June 11. State Capital Printing Company, 5,000 certificates	50
June 11. Paid teachers' salary in Territory	37,581
Balance in United States Treasury	10,000
Balance in First National Bank, Arkansas City, Kans.	2,237
	50,000
Oct. 7. To balance Federal school fund	12,237
Respectfully submitted.	

ROBERT MARTIN,
Secretary.

EXHIBIT 2.

GUTHRIE, October 1, 1891.

His Excellency GEO. W. STEELE,
Governor of Oklahoma Territory:

SIR: I have the honor herewith to submit the following report of the assessed valuation of the property of the Territory and the rate of tax levy and the taxes levied by the Territorial board of equalization:

Total assessed valuation of the property of the Territory as fixed by the Territorial board of equalization, \$6,878,928.95.

The following is the rate of tax levy as fixed by the Territorial board of equalization:

For general revenue purposes 3 mills on the dollar taxable valuation.

For current university fund one-half mill on the dollar taxable valuation.

For current normal-school fund one-half mill on the dollar taxable valuation.

Which gives the following amount of taxes for the several purposes above named:

For general revenue	\$20,636.79
For current university fund	3,439.46
For current normal-school fund	3,439.46

Total taxes levied on the taxable property of the Territory for Territorial purposes by the Territorial board of equalization 27,515.71

Respectfully submitted.

J. H. LAWHEAD,
Territorial Auditor.

EXHIBIT 3.

GUTHRIE, October 1, 1891.

His Excellency GEO. W. STEELE,
Governor of Oklahoma Territory :

SIR: I have the honor herewith to submit the following report of the schools of the Territory, from their opening in January, 1891, to September 1, 1891, as shown by the reports of the county superintendent on file in this office :

School townships organized in Territory	111
School districts organized in Territory	400
School township secretaries reporting	100
Population between 6 and 21 years of age	21,337
White:	
Males	10,464
Females	9,621
	20,085
Colored:	
Males	625
Females	627
	1,252
Number of different pupils enrolled	9,893
Average daily attendance	5,596
Number of different teachers employed	438
Number of teachers required to supply schools	400
Total number of months taught by male teachers	541
Average salary of male teachers per month	\$32.56
Total number of months taught by female teachers	546
Average salary of female teachers per month	\$27.12
Total number of weeks schools in session	3,375
Estimated value of school property, including buildings and grounds	\$15,084.55
School buildings	109
Schoolrooms	126
Schoolhouses built in the year ending June 30, 1891	65
Cost of same	\$8,143.35
Persons examined year ending June 30, 1891	821
Applicants rejected	68
Certificates granted:	
First grade	48
Second grade	177
Third grade	195
Temporary	333
	753
Average age of persons receiving certificates	24
Teachers employed with their respective grade of certificate:	
First grade	40
Second grade	159
Third grade	159
Temporary	80
	438
Different schools visited by county superintendent, year ending June 30, 1891	170
School districts that have sustained public school, year ending June 30, 1891	358
School districts that have not sustained public schools, year ending June 30, 1891	42

FINANCIAL EXHIBIT.

Receipts.

Received from Federal appropriation	\$37,581.00
Received from all other sources	3,439.17
Total received for the year closing September 1, 1891	41,020.17

Expenditures.

Paid out during the year for teachers' wages and supervision	\$37,581.00
Paid out for all other purposes	3,439.17
Total paid out during the year for school purposes	41,020.17

NORMAL SCHOOLS.

Normal schools, lasting two weeks each, were held in each county of the Territory. The following is a condensed report of the same:

Instructors employed.....	21
Lectures delivered.....	23
Teachers enrolled.....	369
Average daily attendance.....	2-0
Receipts.....	\$1, 155. 60
Expenditures.....	\$1, 155. 60

TAXES FOR 1891.

Average number of mills levied for all general school purposes.....	13 $\frac{7}{10}$
Average number of mills levied for the support of separate schools.....	1 $\frac{1}{2}$

Total amount of taxes levied for all general school purposes.....	\$94, 241. 33
Total amount of taxes levied for the support of separate schools.....	10, 318. 39

Total amount of taxes levied for all school purposes..... 104, 559. 72
Respectfully submitted.

J. H. LAWHEAD,
Territorial Superintendent Public Instruction.

EXHIBIT 4.

CHICAGO, September 11, 1891.

J. H. LAWHEAD, Esq.,
Territorial Auditor, Guthrie, Okla.:

DEAR SIR: Per your letter of the 1st instant, addressed to the auditor of the Rock Island Railway, at Topeka, Kans., I inclose herewith statements which will furnish the information desired.

Yours truly,

GEO. H. CROSBY,
Freight Auditor.

Statement showing commodities and number of pounds of freight forwarded from points on the Chicago, Rock Island and Pacific Railway in Oklahoma Territory, year ending June 30, 1891.

Commodities.	Hennessey.	Dover.	Kingfisher.	Okarche.	El Reno.	Union City.
Merchandise.....	306, 200	86, 900	701, 434	4, 535	996, 848	37, 804
Agricultural implements.....	1, 700		7, 460			
Machinery.....		20, 000	045		30, 900	
Wheat.....	74, 450					
Corn.....			29, 000		20, 000	
Oats.....					20, 000	
Potatoes.....	1, 060		7, 674		7, 101	
Seed.....			660		21, 453	
Butter.....	270		525		1, 785	
Hides.....	10, 393		63, 380		71, 117	9, 490
Wool.....				3, 863		
Flour.....			4, 500			960
Salt.....	5, 360		1, 750			
Lime.....			940			
Beef.....			1, 230			
Oil.....	3, 800		17, 330			
Eggs.....	925		255			924
Whisky.....				110		
Beer.....			74, 570		30, 260	1, 450
Lumber.....	1, 328, 600	4, 195, 500	67, 700		244, 075	240, 000
Emigrant movables.....			20, 000		20, 000	
Brick.....			134, 000			
Cattle.....	120, 000		60, 000	4, 011, 100	160, 000	
Hogs.....					40, 000	
Horses.....	20, 000				160, 000	
Iron.....			25, 900			
Manufactured iron.....			2, 717		5, 015	
Hay.....	332, 100	82, 100				16, 000
Wire.....	9, 291		22, 460			
Ties.....		136, 000				
Ice.....					24, 000	
Total.....	2, 214, 149	4, 520, 500	1, 243, 530	4, 019, 608	1, 852, 554	306, 628

Grand total, 14,156,969 pounds.

Statement showing commodities and number of pounds of freight received at points on the Chicago, Rock Island and Pacific Railway in Oklahoma Territory, year ending June 30, 1891.

Commodities.	Hennessey.	Dover.	Kingfisher.	Okarche.	El Reno.	Union City.
Merchandise.....	253,045	496,955	2,792,323	84,030	10,877,934	222,489
Agricultural implements.....	91,900		77,900		23,150	
Vehicles.....	7,230				46,700	
Machinery.....	40,270	20,000			58,550	
Wheat.....	46,280			20,000		
Corn.....	723,404	317,600	1,110,720		2,181,155	
Oats.....	14,310		53,985		968,540	
Potatoes.....	35,480		60,400		24,300	
Seed.....		28,500	20,000			
Mill stuff.....	820,962	56,860	1,025,270		396,790	20,000
Soap.....	20,592		1,000			
Canned goods.....	13,795					
Sugar.....	82,485				131,330	
Lard.....						5,750
Butter.....						
Coffee.....	11,450				68,338	
Flour.....	818,199	135,580	1,194,385		677,490	83,600
Salt.....	97,831		129,000		95,000	
Lime.....	69,880		123,700		212,700	
Beef.....	113,182				117,292	
Oil.....	60,845		127,737		46,990	250
Eggs.....	1,000					
Beer.....	17,400		349,665		807,460	
Whisky.....	3,160					
Fruit.....	27,035					
Lumber.....	1,340,960	183,000	2,119,765	24,000	9,330,110	70,600
Emigrant movables.....	359,510	167,500	425,940	259,200	372,450	80,000
Ties.....					4,982,700	
Brick.....					188,350	
Cattle.....	19,000		20,000		10,000	
Hogs.....		20,000	20,000			
Horses.....	48,500				564,000	
Ice.....	218,210		678,550		743,430	24,000
Stone.....					90,000	
Soft coal.....	3,420		532,650		1,710,210	61,000
Iron.....	3,490				6,441,981	
Manufactured iron.....	19,540				49,880	
Hay.....	16,000		32,000		1,028,550	
Wire.....	89,098		214,160		50,320	22,491
Rye.....	3,869					
Total.....	5,491,412	1,425,995	11,109,150	387,230	42,325,700	590,180

Grand total, 61,329,667 pounds.

EXHIBIT 5.

AGRICULTURAL AND OTHER STATISTICS OF THE TERRITORY OF OKLAHOMA.

Agriculture:

Land in farm use—

Acres under fence.....	287,831	
Acres not under fence.....	712,622	
		1,000,453

Present cash value—

Of farms, including improvements.....	\$4,938,630
Of farming implements and machinery.....	83,869

Number of acres sown in fall of 1890—

Winter wheat.....	27,077
Rye.....	1,317

Number of acres sown or planted in the spring of 1891—

Spring wheat.....	69
Corn.....	85,675
Oats.....	7,770
Sorghum.....	14,930
Castor beans.....	364
Flax.....	300
Cotton.....	30,686
Tobacco.....	47

Agriculture—Continued.

Number of acres sown or planted in the spring of 1891—Continued.

Buckwheat	158
Broom corn	1,126
Hungarian and millet	5,125
Peanuts	272
Potatoes—	
Irish	1,461
Sweet	611
Acres of grasses in cultivation—	
Timothy	165
Clover	718
Orchard and bluegrass	64
Prairie under fence and used for meadow	35,588
Bushels of corn on hand February 2, 1891	27,253
Bushels of wheat on hand February 2, 1891	1,750
Tons of tame hay cut in 1890	5,230
Tons of prairie hay cut in 1890	42,856
Value of product of gardens marketed during the year ending February 2, 1891	\$19,526
Value of poultry and eggs sold during the year ending February 2, 1891	\$14,755
Pounds of cheese made	2,061
Pounds of butter made	258,393
Value of milk sold during the year	\$10,423
Live stock on hand February 2, 1891:	
Horses	16,003
Mules and asses	3,296
Milch cows	16,709
Other cattle	42,825
Sheep	8,122
Swine	10,684
Animals that have died of disease during the year ending February 2, 1891:	
Horses	1,073
Mules and asses	142
Milch cows	893
Other cattle	1,118
Sheep and swine	2,261
Value of animals fattened and sold during the year ending February 2, 1891	\$51,237
Pounds of wool clip in 1890	46,478
Acres in nurseries	546
Trees planted in orchards:	
Apple	150,753
Pear	5,332
Peach	168,316
Apricot	2,295
Plum	11,520
Cherry	21,756
Quince	326
Acres of small fruits:	
Raspberries	56
Blackberries	45
Strawberries	121
Vineyards:	
Number of acres	164
Gallons of wine made in the year ending February 2, 1891	1,390
Value of horticultural products sold in the year ending February 2, 1891	\$229
Bees:	
Number of stands	150
Pounds of honey produced in 1890	1,073
Pounds of wax produced in 1890	3
Value of wood marketed during the year ending February 2, 1891	\$24,259
Manufactories and products of industry:	
Capital (real and personal) invested in the business	\$119,075
Number of horse-power	2,438
Hands employed—	
Males above 16 years	52
Females above 15 years	6
Children and youths	2

Manufactories and products of industry—Continued.

Amount paid in wages during the year		\$12,530
Months in actual operation, reducing part time to full time		613
Raw material used (including mill supplies and fuel) {	feet..	636,500
	blanks..	808,000
	bushels..	360,000
Value		\$252,500
Production (including all jobbing and repairing) {	feet..	358,000
	gallons..	768
Value		\$71,640
Deaf and dumb, blind, idiotic, and insane in the Territory on the 2d day of February, 1891:		
Deaf and dumb		18
Insane		6
Blind		7
Idiotic		6

Respectfully submitted.

J. H. LAWHEAD,
Territorial Auditor.

REPORT OF THE GOVERNOR OF ALASKA.

EXECUTIVE OFFICE,
Sitka, Alaska, October 1, 1891.

SIR: I have the honor to submit my third annual report of my official acts, of the administration of the government, of the operations of law and of the condition of the District of Alaska, especially as to its resources, industries, population, schools, churches, progress in civilization, and such matters appertaining to its needs as have come under my observation for the year ending on the 30th day of June, 1891.

The peculiar physical features of the Territory of Alaska sufficiently account for many of the anomalous conditions of life and business, and the operations of law, when they are understood. It is a country of vast extent, covering an area of about 580,000 square miles, nearly one-sixth of the whole territory of the United States, extending from south to north from latitude $54^{\circ} 40'$ ($16\frac{2}{3}$ degrees) to latitude $71^{\circ} 20'$, and from east to west from 130° west longitude ($57^{\circ} 20'$) to $172^{\circ} 40'$ east longitude.

The mainland consists of a strip of land 30 miles wide, along the coast from Portland Canal on the south to the one hundred and forty-first meridian of west longitude, in the vicinity of Mt. St. Elias, and all of the continent lying west of the one hundred and forty-first meridian north from Mt. St. Elias to the Arctic Ocean. Along the coast in southeastern Alaska is an almost continuous chain of precipitous mountains from 3,000 to 5,000 feet in height, but rising to a much greater height in the White and Mt. St. Elias ranges. Among these mountains, which occupy the whole of the mainland in this part of the Territory, are numerous valleys, and at their feet there are comparatively narrow areas of level or gently rising lands, which are covered with dense forests of spruce, hemlock, and cedar trees, with almost impenetrable thickets of smaller growths. These forests furnish wood and timber, the value of which is yet to be determined. From Mt. St. Elias to the western point of the Alaska peninsula at Issanotski Strait, with the exception of a section of country about Cook Inlet, which is quite level, the coast region is very much broken and mountainous, though with few exceptions the mountains are not so precipitous as in the southern portion, and the timber becomes smaller and less valuable until the forest growth ceases from a point in the vicinity of Kadiak Island westward. The interior of Alaska beyond the coast mountains is less elevated for the most part, and contains extensive plains and hilly country about Bering Sea and adjacent to the Arctic Ocean. It

also embraces the vast valley of the Yukon and other extensive river systems, which are in part wooded. There are but few prominent mountains in the interior.

In addition to this mainland there are embraced within the Territory of Alaska some 1,100 islands, varying in size from those containing areas of hundreds of square miles to those containing a few acres. The islands of southeastern Alaska are very mountainous and broken, and all the mountains of more than 2,000 feet in height are covered with snow at all seasons of the year.

Among these islands, and extending far into the mainland, are numerous deep-sea channels which serve as highways of travel and commerce, and these salt-water ways are supplemented by immense rivers like the Yukon and its branches, the Kuskokwim, the Nushagak, the Copper, the Stikine, Noyatak, Colville, and the Kowak, which afford facilities for transportation and travel from the interior, and without which communication with a large portion of the Territory would be well-nigh impossible.

In discussions upon the subject of establishing facilities for communication and travel in parts of the country remote from the seaboard and not near the water ways to which reference has been made, all natural obstructions like glaciers and the frozen tundra of the Arctic region must be taken into consideration. Through the mountain regions of southeastern Alaska glaciers are numerous, and among the mountains of Alaska peninsula only a little less so. It has been officially reported that above 60 glaciers can be seen from the waters of Lynn Canal, while the larger glaciers of Glacier Bay, and the Fairweather and Mount St. Elias ranges are matters of record. The tundra lands of the Arctic region and in the Yukon valley a few miles back from the river afford no wood or timber, and give little promise of future cultivation or use for purposes of raising stock. Under the thick coat of sphagnous growth is a deposit of peaty substance, or soil, of poor quality, owing to the presence of only partially decayed vegetation, and this substitute for soil is frozen solid to a considerable depth and protected from the influence of the hot sun of the summer by its mossy covering.

The mountain range which forms the coast region of Alaska and sweeps away to the westward through the peninsula and the Aleutian islands, is apparently a continuation of the Rockies which form the backbone of the continent, and the chain of islands seems like the caudal appendage of some huge vertebrate animal. These islands seem to be largely of volcanic origin.

One authority has enumerated sixty-one volcanoes that have been active since the occupation of the country by the Russians, mostly on the Alaska peninsula and the Aleutian isles. It may be questioned whether this is not an overestimate of the number, but there are very many extinct volcanoes in the Territory which exhibit indubitable evidences of their former character. Of those now active or in operation within two decades, so far as can be definitely stated, there are not more than a dozen. The following are positively known, and five of them have been seen in a high state of activity by the writer within a few months.

Bogoslof, 100 miles directly west of Unalaska, about 600 feet in height, emits smoke and steam with great force from innumerable fissures in the surface of broken rock and friable matter, the whole of this part of the island having come up out of the sea within a few years past. This mountain has been fully described in official reports.

Makushin, on Unalaska Island, snow covered, slowly but steadily pouring out its immense volumes of steam and white smoke, is visible in a clear day for 50 miles at sea.

Akutan, on Akutan Island, between Unimak and Akutan passes, violently puffing out its black and white smoke from a wide open mouth on its summit, at intervals of a few seconds, is the observed of all observers.

Sheshaldin, on Unimak Island, a beautiful cone of the most perfect proportions, rising to a height of 8,755 feet from the sea, which laves and dashes in spray and foam upon its base, clad in robes of fleecy snow at the time of the writer's observation on the 28th of April last, but disclosing its broad and blackened pathway of ashes and condensed smoke and steam from the huge orifice near the sharp-pointed apex to the base, is still gently smoking as if a raging fire were now just dying down for want of fuel.

Pavlof, near Belkofsky on the Alaska peninsula, which can be approached to the very base of the mountain at Bear and Pavlof Bays, apparently something more than 4,000 feet in height, puffs out its immense volumes of dense black smoke from an opening on one side, perhaps 500 or 1,000 feet from the sharp pointed summit, at intervals of half a minute, and the visible demonstration of its work in the form of a blackened mountain side to the water's edge soon after a heavy fall of snow proved the power of its invisible enginery.

Illiamna, near the left-hand shore of Cook Inlet, as the navigator passes in, is 12,066 feet high, and is reported to be constantly active, sending out ashes and sulphurous smoke.

Redoubt, about 60 miles northeast of Illiamna, is also constantly active, but has never been explored and perhaps only seen from a distance.

Mount St. Augustine, some 150 miles north of Kodiak Island, was active for some months in 1883, but no activity has been reported since the year following. While the eruptions were in progress the decks of vessels were covered with ashes from it for hundreds of miles at sea.

Chirikof, on an island of the same name, was reported active about 10 years ago.

Kagamil. In 1874, when Captain Lennan, now of the steamer *Elsie*, was sent to the islands of the Four Mountains, a small group west of Unimak, to explore a cave said to contain mummies, and from which he succeeded in bringing 17 bodies, most of which have been preserved in different museums in the country, he discovered on Kagamil Island a low mountain near the water's edge, from the base of which in many places there issued jets of sulphurous steam, smoke, and noxious gases which compelled them to stand off from the shore to avoid the offensive odors. No other account of this eruption has been received. These islands are now seldom, if ever, visited.

Progromnia, a mountain near the west end of Unimak Island, 5,832 feet high, is reported upon the charts and in the early records as a volcano, but careful inquiry has failed to elicit definite information of an eruption in recent times.

Thermal and mineral springs are frequent. The large sulphur "Iodine" springs, about 12 miles from Sitka, are very much visited for their remedial qualities in many diseases, and the Hoonah springs are only a little less frequented, on account of the greater inconvenience in reaching them. There are said to be hot marshes and a lake of sulphur on Unimak Island. There is a warm lake on the upper Tanannah, reported by Lieutenant Allen. There are also hot springs, some of them boiling, on the islands Unalaska, Atka, Akun, Kagamil, and Kanaga, at various places on the mainland.

CLIMATE.

The climate of the country is an important element in determining conditions found to exist, and should be taken into consideration in estimates of future development and progress. The broad extent of the Territory, the snow-capped mountains and glaciers, the extensive sea-coast, the warm ocean currents, the broad moorland plains of the north-land, and various other peculiar features and conditions necessarily contribute to the wide diversity of climate and atmospheric phenomena which we find to exist. The interior of the Territory, far enough from the coast to be uninfluenced by the sea breezes and ocean currents, exhibits extremes of heat and cold, with long winters and short summers, and has a dry atmosphere through all the seasons; while the climate of the long coast line, from Dixon Entrance to the extreme west end of the Alaskan Peninsula, and of all the islands of southeastern Alaska, of the Kadiak and Shumagin groups and the Aleutian Archipelago is mild and equable and moist. The severity of the climate is greater in the higher latitudes, and north of the Arctic Circle few trees are found, and those are of a stunted growth. In the Yukon Valley the thermometer frequently registers 100° above zero in summer and from 50° to 70° below in winter. From the Yukon to the ocean on the north there are apparently no alleviating climatic conditions. The earth below the tundra moss remains frozen the year round. Portions of the land lying more favorably for drainage produce grasses, small bushes, most beautiful flowers, and an abundance of berries. Snow does not accumulate to a great depth in this region, and there is a very small amount of rainfall in summer.

The more southern portions of the Territory, and especially those affected by oceanic influences, are better known and observations have been taken systematically and in some cases reported officially. From these reports it appears that the variations of heat and cold and wet and dry weather between different places along the coast and among the islands are not so great as to require separate discussions. The thermometer has ranged between 90° above and 4° below zero during the 48 years of the official record at Sitka, with a mean annual temperature from $41^{\circ} 3'$ to $46^{\circ} 8'$. The number of days in which rain or snow fell during the years of this record has averaged up to nearly 200, though some of these days were practically fair and fine. The official weather and meteorological record for the past year at Sitka, kindly furnished me at my request by Lieut. Commander O.W. Farenholt, which is attached as Appendix A, need not be greatly amended to describe meteorological conditions throughout the whole of southeastern Alaska, the coast of the North Pacific, and the island country to the westward.

This peculiarly warm and equable climate in the coast regions is due, as has been heretofore stated, to the Kuro-Siwo, or Japanese Current of warm water, which, flowing across the Pacific Ocean from the tropical regions of the Eastern Hemisphere, strikes the American coast near the southern boundary of Alaska and is deflected in part northward, following the coast in its sweeping bend westward and southward again.

CIVIL GOVERNMENT OF ALASKA.

After a period of nearly 17 years of purely military and naval rule, in 1884 the act organizing the Russian purchase known as Alaska was passed by Congress and approved by the President of the United

States. The Territorial organization was incomplete and has not since been completed to give the Territory representation in Congress, local legislative powers, or even certainty of position among the Territories of the United States. During the year covered by this report the civil government has been administered by the following officers, viz:

Governor, Lyman E. Knapp; judge of the United States district court, John S. Bugbee; marshal, Orville T. Porter; clerk of court, Nicholas R. Peckinpugh, since August 16, 1890; United States district attorney, Charles S. Johnson; collector of customs, Max Pracht, succeeded by Edwin T. Hatch July 1, 1891; United States commissioners: Sitka, T. Carlos Jewett, until October 2, 1890, since which time Robert C. Rogers; Juneau, Louis L. Williams, to August 9, 1890, since which time William R. Hoyt; Fort Wrangel, James Sheakley; Unalaska Island, Louis H. Tarpley.

All these officers were appointees of the President, by and with the consent of the Senate, and they have been assisted by eight deputy marshals, five deputy collectors of customs, clerks, justices of the peace, notaries public, constables, and native policemen. There has been no friction in the workings of the government machinery, and the hearty coöperation and assistance of all my associates are gratefully acknowledged. I take pleasure also in acknowledging courtesies and assistance from the U. S. S. *Pinta*, Lieut. Commander O. W. Farenholt commanding, and the U. S. revenue cutter *Bear*, Capt. M. A. Healey, commanding.

In addition to my work at my office in Sitka I have made official visits on the U. S. revenue cutter *Bear* to the Shumagin group, Unalaska Island, and the Pribilof islands in the Bering Sea; to Chilcat on the U. S. S. *Pinta*; to Juneau, by the courtesy of Rudolph Newmann, general agent of the Alaska Commercial Company, on their steamer *Dora*; and to various places in southeastern Alaska on the regular line of mail steamers. During these visits careful investigations were made into the condition of the natives, all matters affecting the efficiency of the public schools, the administration of justice, the condition of public buildings, the general progress of the people in the development of the country, and the success of business enterprises of every kind. In all parts of the Territory, so far as information has reached this office, all is peaceful and quiet, and no outbreak of lawlessness, other than exceptional instances of crime and misdemeanor, has occurred.

INDIAN POLICE.

Under the direction of the Commissioner of Indian Affairs I have within the year organized a corps of paid Indian police consisting of 1 native officer and 14 privates, all of whom have been provided with badges and insignia of their office. Provision was made by the department for 4 officers and 50 privates, but up to this time it has been impossible to find men in many of the native villages of whose efficiency and trustworthiness there was sufficient certainty to warrant the issue of commissions. It seemed better to proceed in a conservative manner and only as rapidly as could be done with reasonable certainty. Experience has proved that the best results are obtained by placing the native policemen under the direction of some white man in his vicinity, and when possible a deputy marshal has been named as his chief of police. The native policemen have been instructed to preserve the peace and prevent drunkenness and hoochinoo making among the natives, to inform the marshal of all infringements of law, to secure as

far as possible the attendance of native children at the public schools, and generally to aid the marshal or other person to whom they are required to report in the preservation of order, serving processes, and obtaining information as to matters important for the Government to know as to the condition of affairs among the natives. Since the organization of the police corps last November their services have proved very valuable and it is desirable that the whole force authorized be employed so soon as the right men can be found with conditions favorable for successful results. As a specific instance of the value of the services of these policemen during the fall of 1890 it is said that a firm closing up business at Juneau took a quantity of black molasses to Chilkat, and sold some 8 or more barrels at tempting prices to the Indians, and that they obtained it also from other sources. From this material the Indians distilled a vile liquor called "hoochinoo" in large quantities and during the early part of the winter drunkenness and bacchanalian rows, and even bloodshed, were frightfully common. About the 1st of February last 3 native policemen and 1 white man as an officer were appointed for Chilkat, Chilcoot, Pyramid Harbor, and the upper Chilkat villages, with orders to report to Deputy Marshal Healy. In a few weeks the entire region was substantially cleared of hoochinoo stills and the native liquor. About twenty stills were broken up and more than a hundred gallons of the liquor destroyed and quiet again restored.

MILITIA.

By the act of Congress, February 12, 1887, for the purposes of providing arms, ordnance stores, quartermaster stores, and camp equipage for issue to the militia, provision was made for the supply of the militia of Alaska, and efforts were made by my predecessor to effect an organization, but without success. For the purpose of better caring for stores obtained on his requisition, and preparatory to the organization of the militia of the Territory, I appointed a personal staff of 8 officers, including an adjutant-general, a quartermaster-general and assistant, a surgeon, an inspector-general and 3 aides. On the 5th day of June, 1891, Company A, First Regiment Infantry, Alaska Militia, was organized, with Harry Hare, captain; Fred Heyde and Jo. Snow, lieutenants. The company has 48 men besides the 3 officers. Good reports of this company have since been received. It has been suggested that application may soon be made for the organization of a company of natives, and if so the embarrassing question will arise as to their legal status, upon which subject more will be said hereafter. Further legislation ought to be had allowing the use of a portion of the appropriation for equipment to be used, in the case of the Alaska quota, to pay for services and expenses of the men in an annual encampment and drill, and on occasions, if any such shall occur, when the exigencies of the service require that they be called out for active duty. Thorough efficiency and readiness of response to such calls can only be secured by fair compensation, and no compensation can be provided for except by national legislation.

THE SEAL ISLANDS.

Section 5 of the act of May 17, 1884, requires the governor from time to time to inquire into the operations of the Alaska Seal and Fur Company, and annually report to Congress the result of such inquiries and any and all violations by said company of the agreement existing between the United States and said company.

In the discharge of the duties imposed upon me by this act I used my best endeavors while visiting the seal islands in April last to obtain such information as would give me an intelligent idea of the situation, though my limitations of time and opportunity were such that it is doubtful whether anything of value will be added to the sum of information upon the topics discussed. These islands, also known as the Pribilof Islands, are located in Bering Sea a little more than 200 miles northwest of Unalaska, and consist of St. Paul, St. George, Otter, and Walrus Islands. St. Paul is 13 miles long by 4 in width, and St. George, 30 miles southeast, is about 10 miles long by 4 in width. The other islands are very small and unimportant. All these islands are treeless and somewhat rocky and without harbors. They are evidently of volcanic origin, and a large portion of the time are enveloped in mist and fog. The inhabitants are Aleuts, taken there as employes of the company holding a lease of the islands, and a few white people connected with the company and the Government agent. The North American Commercial Company is the present lessee of the islands. During those parts of the year in which they are not employed for the company the natives are engaged in hunting and fishing or idling away their time in occupations less commendable.

The census and vital statistics for 1890 show on St. George Island 19 native houses and 22 families. The whole native population is 92, of which 42 are males and 50 are females; 51 are adults over the age of 15 years, 23 are between 5 and 15, and 18 are under 5. In 1890 there were 7 deaths and 6 births. On St. Paul Island the number of native families is 66; native population 219, of which 126 are adults over the age of 17 years, 64 from 5 to 17, and 29 under 5. In 1890 there were 21 deaths and 15 births.

The highest point registered by the thermometer in 1890 was 55° and the lowest was zero.

The Government agents, Capt. A. W. Lavender, on St. George, and Colonel Murray on St. Paul Island, took every pains to furnish information upon the subjects of my inquiry, and the company's agents, Mr. C. L. Fowler and Mr. J. C. Redpath, were no less kind and courteous.

The number of seals taken by the North American Commercial Company in 1890 was only 21,596, a much smaller number than had been taken in any year during the continuance of the Alaska Commercial Company's lease. The following table shows the number killed in each year:

Year.	On St. George.	On St. Paul.	Total.	Year.	On St. George.	On St. Paul.	Total.
1871.....	19,077	29,788	48,865	1882.....	20,000	80,000	100,000
1872.....	25,000	65,499	90,499	1883.....	15,000	60,101	75,101
1873.....	25,000	68,035	93,035	1884.....	15,000	83,092	98,092
1874.....	10,000	88,058	98,058	1885.....	15,000	70,451	85,451
1875.....	10,000	83,890	93,890	1886.....	15,000	72,120	87,120
1876.....	10,000	69,367	79,367	1887.....	15,000	77,389	92,389
1877.....	15,000	58,732	73,732	1888.....	15,000	73,808	88,808
1878.....	18,000	78,570	96,570	1889.....	15,000	68,485	83,485
1879.....	20,000	80,572	100,572	1890.....	4,763	16,833	21,596
1880.....	20,000	80,000	100,000				
1881.....	20,000	80,000	100,000	Total .....	.....	.....	1,706,630

During this period there were also killed a considerable number for food by the natives, many of them pups, but not probably in excess of the number allowed by the Government for that purpose.

The marked falling off in the number of seals killed in 1890 may be accounted for in three ways: First, Diminution in the number of seals

visiting the islands, either by reason of unwarranted depredations upon seal life and indiscriminate slaughter of females in the open sea, or by some unexplained freak of the seals in not returning to their accustomed rookeries. Second, Because while the seals were later than usual in reaching the islands in the season of 1890, the killing was stopped on the 20th day of July, instead of August 1, as has been the rule. Third, From the fact that during the last year or two of the Alaska Commercial Company's lease the difficulty of procuring the number allowed them had induced the killing of those younger than had heretofore been taken.

During the fall of 1890 poaching vessels succeeded in landing several boats at one of the rookeries, and some 190 seals, mostly females, were clubbed and killed. The poachers were driven off without their booty, and most of the skins were saved.

The school on St. George Island, George B. Fox, teacher, reports 71 school days with an average daily attendance of 20.154. Slate and blackboard exercises showed efficiency of drill in writing and figures. The school on St. Paul was taught by Edward T. Baldwin, with an average attendance of 43 scholars between the ages of 6 and 16 years. The school was in session 4 months. The grade of acquirements by the scholars of both schools was low, but the fidelity and efficiency of the teachers in their work was undoubted.

Some years ago these islands were stocked by the Alaska Commercial Company with white and blue foxes, and the natives have been allowed to hunt them. The allowance for skins delivered at the company's store was formerly 50 cents, but is now \$1. It is estimated that no less than 9,000 foxes have been taken on St. George Island during the last 20 years. The cash earnings of the natives on St. George Island may be proximately stated as amounting in 20 years to \$198,547.70, made up as follows :

Seal-killing contract.....	\$152,063.20
Other labor for company	24,000.00
Skins of food seals.....	13,484.50
Fox skins.....	5,000.00
Other sales.....	4,000.00

The resident population of St. Paul Island has had equally good opportunities, and the cash income has been increased by abundance of food supplies from the seal and sea-lion carcasses, birds, and fishes taken at times when the inhabitants are not employed for the company.

The natives do not quite comprehend and appreciate the importance of laying by their surplus funds in store for future use, and yet they are not wholly improvident.

They have credits with the company, although just now somewhat diminished by their smaller earnings when fewer seals were taken, with figures, on the 1st day of January last, as follows :

Total to the credit of natives August 11, 1890	\$4,128.43
Reduced by drafts on deposit.....	1,669.46
Leaving on deposit January 1, 1891.....	2,458.97
Add to this, deposit of the priest	1,600.00
And of the Russian Church.....	1,294.55
Whole deposit January 1.....	5,353.52

The company, so far as could be learned during my brief visit, is endeavoring to treat the people fairly, if not generously, charging only reasonable prices for goods and seeking to promote their physical,

moral, and intellectual welfare. They have a physician on both islands, and health and cleanliness are especially cared for.

The most serious difficulty to be treated seems to be the illegitimate and indiscriminate slaughter of seals, females and the young, as well as the bulls of proper age, in the open sea, a matter which is under the direct attention of the Government. There is no doubt that a most valuable industry and fruitful source of national income is in danger. More than 100 marauding vessels have been hovering about the islands in Bering Sea during the season, and large numbers of skins have been taken. The C. P. N. Co.'s steamer *Danube* made a special trip to the North Pacific during the latter part of June, reaching Victoria on return July 6 last, having on board nearly 18,000 seal skins received from some 35 sealing vessels which it met, apparently by appointment. Those delivering their cargoes to the *Danube* were all British vessels. This partial enumeration for a small portion of the season confirms the opinion that the estimate of the number of seals taken illegitimately and irregularly during 1890, which is fixed at from 50,000 to 60,000, is not too large. (See Appendix D.) If, as is generally supposed, those captured in the sea represent only a small percentage of the seals actually killed, especially since the slaughter must of necessity be indiscriminate, the destruction to seal life is very great.

Since the agreement between the United States and Great Britain, of date June 15, 1891, was published, the waters of Bering Sea have been patrolled by 8 or more armed vessels, American and British, acting in concert to stop the depredations. At this writing two American schooners have been seized and brought to Sitka and duly libeled for forfeiture in the United States district court, and 1 British vessel has been sent to Victoria for proceedings in the English court. Of the results of previous seizures, it may be stated that during the year 2,468 seal skins which had been seized and declared forfeited by the court were sold at public auction in San Francisco, from which were realized \$24,256.37. The market value of seal skins has greatly increased since the excitement over the Bering Sea matter has been so great, owing largely, probably, to the smallness of the catch at the islands last year, and the increase in rates by the terms of the new lease of the islands.

EDUCATION.

The change in the system of management of the public schools in Alaska, by transferring the whole business from the Territory to the national capital, prevents access to the records and all possibility of a full statistical report. A general agent was appointed for the Territory as usual and a desk assigned him in the Bureau of Education at Washington, where he remained from the time of his return from a cruise in the Arctic last year until he came back to Alaska for another cruise in the Arctic in 1891, stopping only at convenient places during his passage. His return from the north is not expected until late in the fall, when it is supposed he will go east again. An assistant general agent was selected from among the clerks in the office of the Commissioner of Education, permanently located in Washington, who, it may be presumed, receives reports direct. But the information given does not become available to this office until too late for use, if indeed it is received at all.

Thirteen Government day schools have been in operation during the year, as follows, viz:

Location.	Teacher.	School.
Unalaska	John A. Tuck	Native.
Afognak	John Duff	Do.
Kadiak	W. E. Roscoe	Do.
Juneau No. 1	Miss Rhoda Lee	White.
Juneau No. 2	Mrs. Tozer	Native.
Douglas No. 1	Mrs. W. S. Adams	White.
Douglas No. 2	C. H. Edwards	Native.
Killisnoo	E. M. Calvin	Do.
Sitka No. 1	Miss Cassia Patton	White.
Sitka No. 2	Mrs. Vanderbilt	Native.
Wrangel	Mrs. W. G. Thomas	Do.
Klawak	Henry G. Wilson	Do.
Howkan	Mrs. Clara (Gould) McLeod	Do.

Ten of these schools are within the section known as southeastern Alaska. Schools were also authorized at Chilkat, Kake village, Unga, and perhaps at Belkofsky. At Kake the school house built during the year was not completed in time to secure a teacher for the school. A new house has also been erected at Chilkat to change the location of the school from the Haines mission to a more favorable one near the canneries. Complaints from residents of Chilkat, Unga, and Belkofsky that they have not received proper attention in the matter of schools, were referred to the general agent. Personal visits to nearly all of these schools have satisfied me that the teachers employed have performed their work conscientiously and well. In some places the Indian police system introduced last fall has been very helpful to the attendance. The want of a compulsory attendance law has not, however, ceased to be felt. For the amount of wages paid to teachers, statistics of attendance, and the general character of contracts with religious and mission schools during the year, reference is made to the Commissioner of Education. The general agent of education kindly furnished the information that, for the school year 1891-'92, Government day schools have been provided for, 1 each, at Karluk, Kadiak, Afognak, Chilkat, Killisnoo, Wrangel, Klawak, Howkan, Nutchek, Metlakahtla, and Kake, and 2 each at Juneau, Douglas, and Sitka, 17 in all, an increase of 4 above the number in operation during 1890-'91, and that contracts have also been made with missions as follows, viz: Presbyterian at Point Barrow, Hoonah, and Sitka; Episcopalian, at Point Hope and Anvik; Congregational at Cape Prince of Wales; Reformed Episcopal at St. Lawrence Island; Roman Catholic at Nulato, Kofokurefsky, and Cape Vancouver; Swedish evangelical at Unalaklik and Yakutat; Methodist at Unalaska and Unga. There were several mission schools receiving Government aid last year, not given in this report, of those to be assisted for the next year. Why they were omitted in the contracts for the future is not stated. The North American Commercial Company employed teachers, one each, at St. Paul and St. George Islands, during 4 months last winter, presumably in fulfillment of their contract with the Government; for particulars, see discussion of the topic.—The Seal Islands.

It is safe to assert that the best work for the education and elevation of the natives of Alaska has, thus far, been done by the missions and churches. This statement is made in large measure from personal observation. Some of these schools have given me specific information in the form of written reports and in other cases verbal statements have been made. The two distinctively industrial schools are the Metla-

kahtla colony and the Sitka Industrial Training School. At the former place Mr. Duncan and his associates have organized the whole community, some 990 persons, into a training school with special features, the young only receiving book instruction, but all engaged in the various vocations of life and business under special tuition and care. They have a cannery in operation, a lumber mill, a store, transportation boats on a small scale, mechanics' tools, and the various appliances of civilized life. They are taught to keep the store, practical book keeping, to run the mill, to perform all the processes of preparing salmon for the market, to build houses, to cultivate their land, to organize and run their municipality, to manage the school and church meetings, and even to make speeches of welcome to officials and distinguished visitors.

These people dwell in frame houses, dress and appear like white people, have no chiefs, but elect a town council who have a general oversight of the settlement. The children are bright and are making considerable progress in education. During the next year their school is to rank as a government day school.

Prof. W. A. Kelly, who has had charge of the Sitka Industrial Training School, reports 20 teachers and assistants, and 140 pupils as an average attendance during the year. The school has made steady progress. Mr. Kelly's observation extends over a period of about 6 years, during which time he has been in charge, and his statement carries weight when he says:

The transformation of most pupils who have been in the school from 3 to 5 years is very gratifying. The girls, under vigilant training, become efficient in household work while the boys become skilled in manual trades. The training school is working a wonderful transformation. A retrospect of 6 years' work shows a surprising revelation and the beginning of a wonderful revolution—a revelation of their heathen customs, of their depths of degradation, their woful ignorance, their sensuality and great mortality—the harbinger of a revolution in their beliefs, customs, and manners of life.

Besides the schools in connection with the missions referred to there are also schools connected with Catholic, Episcopal, Moravian, and other denominational missions, and 17 parish schools of the orthodox Russian Church, of the condition of which it is impossible at this writing to secure very full information. The Sitka Russian Parish School has had about 30 pupils, and very satisfactory results have been observed.

A year's trial of the experiment in the management at present in force has confirmed the opinion heretofore expressed that the educational interests of Alaska demand a management of its schools at closer range than 4,000 miles of distance, with facilities of communication so poor that responses to inquiries and suggestions of needs can be obtained from headquarters only after an interval of from 6 weeks to 6 months. An advisory committee was appointed, but they have had no authority and very uncertain duties. We have had local committees in a few places, but they are without power even in the greatest emergencies, and there is no proper material for committees suitable to be intrusted with power, except in a very few towns.

It is a problem of unusual perplexity which is here presented for solution, and different persons might easily differ as to methods. A few essentials may perhaps be agreed upon. First, the management should be as nearly as possible local; second, it should be non-partisan and non-sectarian; third, those having charge should be competent and have some adaptation to educational work. Perhaps a Territorial board of public instruction, to be appointed by the Secretary of the Interior, who, under the direction of the Commissioner of Education, should

have full control of all the Government schools and the expenditure of the public moneys, to whom the general agent, all superintendents, local committees, and teachers should report, and under whose immediate direction they should act, would meet the requirements of the situation. If not, some other plan embodying the above essentials ought to be devised. The requirements of other localities where different conditions exist constitute no guide for action in the case of Alaska, which is *sui generis*, and the questions to be decided should be approached with a full consideration and appreciation of the remoteness of the Territory, its isolation, the multifarious character of its people, and the fact that not less than a dozen religious societies are pressing for their share of Government funds to be distributed to contract schools.

THE ADMINISTRATION OF JUSTICE.

The courts of Alaska consist of the United States district court, and four commissioners' courts, located at Sitka, Juneau, Wrangel, and Unalaska. The district court is, by the organic act, required to hold two terms in each year, one at Sitka beginning on the first Monday in May, and the other at Wrangel beginning on the first Monday in November, with special terms in the discretion of the judge. The business coming before this court, as a matter of fact, requires it to be kept open from one term to another, and recesses are taken from time to time as a relaxation of business allows. The regular terms have been held only at Sitka and Juneau, though it now seems that there ought to be a special term at Unalaska every year. The jail located at Sitka is insufficient for the requirements of the Territory, and the little lockups at Juneau and Wrangel can be used while prisoners are in transit only.

Statement of the business of the United States district court for the district of Alaska for the year ending June 30, 1891, kindly furnished by Mr. Peckinpaugh, clerk of the court.

CIVIL CAUSES.

[Between individuals.]

Suits pending July 1, 1891.....	38
Suits begun during the year.....	37
	75
Causes disposed of—	
By dismissals.....	21
By trial by jury.....	5
By trial by the court.....	16
New trials granted.....	3
Finally disposed of.....	39
Pending June 30, 1891.....	36
	75
Judgments rendered—	
For plaintiffs.....	*16
For defendants.....	2

*Amounts, \$7,663.45.

[Between the United States and individuals]

Suits pending July 1, 1890	2
Suits begun during the year	8
	<u>10</u>
Disposed of—	
By dismissals	2
By trial by jury	1
Pending June 30, 1891	7
	<u>10</u>
Judgments rendered for defendant	1

CRIMINAL CAUSES.

Indictment pending July 1, 1890—	
Murder (German)	1
Resisting officer (Indian)	1
	<u>2</u>
Indictments returned and filed—	
Murder:	
American	1
Russian	1
Indians	3
	<u>5</u>
Larceny (Indian)	1
Housebreaking (Russian)	1
Resisting officer (Chinaman)	3
Assault and battery with intent to kill (Irish-American)	1
Assault with dangerous weapon (Indians)	3
Assaulting an officer (Indian)	1
Extortion (German)	1
	<u>11</u>
Disposed of—	
By trial by jury:	
Convictions	5
Acquitted	6
	<u>11</u>
By trial by the court, convictions	6
Sentenced to prison at Sitka	2
Sentenced to penitentiary	5
Fine collected	\$5

FINANCIAL.

Receipts—	
On account of sale of sealskins (seizure 1889), net	\$21,370.56
On account of fines and forfeitures:	
United States commissioners	541.00
United States district court	5.00
Total	<u>21,916.56</u>
Expenditures:	
Deposit to credit Treasurer United States	18,454.28
Miscellaneous expenses	2,741.50
Balance in registry of court	670.78
Total	<u>21,916.56</u>

Net amount realized from sale of vessels, arms, ammunition, and seal-skins on account poachers in Bering Sea:

Seizures of 1889.....	21,370.56
Seizures, previous years..	24,933.35
Total.....	46,303.91
Amount of costs, expenses, and officers' fees incurred and paid over on account of such seizures and sales of vessels, sealskins, etc.:	
Seizure, 1889.....	2,885.81
Seizure, previous years.....	13,735.50
Total.....	16,621.31

Statement of causes in United States commissioner's court, at Juneau, Alaska, during the year ending June 30, 1891.

Disturbing the peace (drunk and disorderly)	109
Larceny	17
Furnishing liquor to Indians	13
Examinations.....	6
Coroner's inquest	1
Civil cases tried.....	37
Criminal cases tried.....	145
Convictions.....	112
Acquittals	27
Examinations.....	6

Statement of causes in the United States commissioner's court at Sitka during the year.

Disturbing the public peace and disorderly:	
Indians.....	9
Russians.....	9
Irishmen.....	1
Assault and battery:	
Indians.....	11
Russians.....	4
Americans.....	2
Larceny:	
Indians	6
Russians.....	3
Selling liquor to Indians:	
Indians.....	1
Russians.....	3
Americans	6
Chinese.....	8

Convicted: Disturbing the public peace and disorderly conduct, 19; assault and battery, 12; larceny, 8; selling liquor to Indians, 12.

Acquitted: Assault and battery, 4; larceny, 1; selling liquor to Indians, 4.

One prosecution was compromised. One action was brought against three sailors for desertion, two of whom were convicted and the other avoided arrest. One action is still pending against an apprentice of the industrial training school. Of actions not within the jurisdiction of the commissioner for assault with dangerous weapon there were Indians 3 and Russian 1, of whom 2 were held. The other 2 avoided arrest. There were also 2 forfeitures of bail of those charged with selling liquor to Indians.

Statement of causes in United States commissioner's court at Wrangel for the year ending June 30, 1891.

CAUSES TRIED.

Drunk and disorderly:	
Indians.....	16
French.....	1
English.....	1
Selling whisky to Indians:	
Russian.....	1
Chinamen.....	2
French.....	1
Indians.....	3
Total.....	25

Convictions:	
Drunk and disorderly.....	14
Selling whisky to Indians.....	7
Total.....	21

Acquittals.....	4
Civil suits.....	4

The commissioner at Unalaska reports but 1 case during the year, and that was a complaint for murder, in which the defendant, an American, was held for trial.

Report of the United States prisoners confined in the United States jail at Sitka, Alaska, during the year ending June 30, 1891.

In jail July 1, 1890.....	13
Received from July 1, 1890, to June 30, 1891.....	81
In jail during the year.....	94

Discharged from July 1, 1890, to June 30, 1891.....	81
Remaining in jail June 30, 1891.....	13
Total.....	94

Social relations:	
Married.....	32
Single.....	62
Total.....	94

Sex:	
Male.....	83
Female.....	11
Total.....	94

Color:	
White.....	41
Indians.....	45
Chinese.....	8
Total.....	94

Offenses:	
Murder.....	3
Manslaughter.....	3
Assault with a dangerous weapon.....	5
Assault with an intent to injure.....	2
Resisting a United States officer.....	3

Burglary	2
Rape	1
Adultery	1
Grand larceny	2
Petit larceny	11
Violation of internal-revenue laws	6
Attempt to assault	1
Assault and battery	12
Selling liquor to Indians	19
Drunk and disorderly and outraging public decency	20
Desertion	2
Insanity	1
Total	94
Serving sentence	85
Awaiting examinations or trial	9
Total	94
Per diem charge for subsistence, 70 cents.	

Disbursements by the United States marshal for the fiscal year ending June 30, 1891.

Appropriations:

Fees of jurors	\$5,527.00
Fees of witnesses	6,846.05
Pay of bailiffs	299.50
Support of prisoners	11,190.73
Miscellaneous expenses	2,697.76
Fees and expenses, marshal	2,485.00
	29,046.04

Of the criminal business a large proportion was either directly connected with the sale and importation of intoxicating liquor or grew out of its use, directly or indirectly. The unfortunate conditions of nonenforcement of the laws on these subjects reported last year are still continued, and the results of efforts to enforce them are no less unfortunate. In order to bring the information in its details before the executive and legislative departments of the Government I addressed a letter of inquiry to the United States district attorney asking a report of matters connected with the business of his office during the year ending June 30, 1891, especially, among other inquiries, asking what steps had been taken to enforce the law against the sale of intoxicating liquors within the Territory and what is the present status of things in relation to its violation within the district. His reply is appended hereto as Appendix B.

The laws of the Territory seem to impose duties, in relation to the different phases of the liquor business, upon three or more different officers. First, the collector of customs is required to use his utmost endeavors to prevent its importation into the Territory. None is allowed to be landed except with a permit from him, and in the exercise of his discretion in giving such permits he is accountable only to the executive department of the National Government; and I have no information or means of knowing to what extent or how wisely such discretion has been exercised. Secondly, the governor is required, in the exercise of a sound discretion, to issue licenses for the manufacture and sale of intoxicating liquors for the uses allowed by law to such persons as he deems it wise and necessary. Up to the time of writing the last annual report the present incumbent had issued no license, because no application had conformed to the requirements made, and it

was so stated in the report. During the past year five licenses to sell for the uses allowed by law were issued, three to parties residing in Juneau and two to parties residing in Wrangel. Two of these licenses have expired by the original limitations and three are still in force. Thirdly, it is the duty of the courts to impose the penalties authorized by law upon all offenders. The United States district attorney as public prosecutor has duties in the way of initiating proceedings for the enforcement of the law against selling, manufacturing, and importing intoxicating liquors without authority, and as to his action his report is the best exposition. If private citizens who take upon themselves the responsibility of forwarding complaints of official delinquencies and of making criticising statements for the public press would remember their obligations as citizens to conform to the laws and assist in their enforcement there would be less occasion for deprecating the failure of justice in the Territory.

The importance of better transportation facilities for the administration of the government and the enforcement of the laws has been freshly illustrated by the experiences of the past year. In a number of instances persons charged with crime have not been arrested for want of facilities for travel and transportation for officers, defendants, and witnesses. In other cases greater expense has been incurred than would have been necessary if a vessel had been provided for the use of the Territorial administration. At every regular term of the court the expense of transporting court officers, jurors, and Government witnesses to and from the place of holding the session is no unimportant item, but for some unexplained reason the last Congress declined to intrust the Territorial government with a vessel for transportation purposes and the only relief now suggesting itself is the detail of a revenue cutter for use in Alaska to combine the service of the customs department with that of transportation for general purposes in the administration of the Territorial government. A naval vessel stationed in these waters does not meet all the requirements of the situation. War ships are scarcely adapted to transportation business because their space is too much taken up in supplying accommodations for their regular crews, and their business is war, not transportation. The want of flexibility in the naval service does not in any way militate against its usefulness for its legitimate work, but it does operate to prevent the best results when other work than that in its line is required. The revenue marine is in the civil service. It is organized for the purpose of assisting the civil government, and the need of additional facilities for enforcing the revenue laws in Alaska is most pressing. The temptation for unprincipled men to engage in smuggling intoxicating liquor and opium into this Territory is very great; and yet the collector of customs, upon whom is laid the duty of preventing it, has been furnished with only a single rowboat with which to patrol and guard 3,000 miles of coast line. He has also other duties which require traveling facilities. It is made his duty to enforce the law against the barricading of streams to prevent salmon from ascending to their spawning grounds. These streams are innumerable and remote from lines of commercial traveling and out of the way of ordinary communication. This whole territory is innocent of carriage and railroads and the only means of travel are found in our intricate system of water ways. How, then, with his present facilities, can he be expected to perform the responsible duties of his office?

The organic act of May 17, 1884, provided for only 4 commissioners to perform the judicial functions of petty courts and courts of probate

for the whole of this vast territory, with its 33,000 people, located in more than 200 towns and villages, scattered all over this vast domain. They are by law so strictly located that even a temporary removal from their fixed habitation, without a special authorization from Washington, is liable to be construed into a breach of duty. During the 7 years since the passage of this act the utter inadequacy of this provision for the protection of the people and their interests has been repeatedly reported and urgent appeals have been made for relief. So important has it seemed for the preservation of the public peace that there should be some authority to enforce it in places remote from the residences of the commissioners that Congress has been requested to legalize the appointment of justices of the peace, without compensation. But never a word or syllable, not even of inquiry into the necessity for legislation, has been heard in the halls of the national legislature. A well-known rule in physics needs but a slight modification to illustrate. In the apparent estimation of the legislative mind the lives and property rights of human beings are held of importance in the adverse ratio of the square of the distance.

It is conceded that an attempt to cover the whole district with jurisdictions of local petty courts by a single enactment would be folly, but as the country develops and the native population becomes educated up to the idea of submitting to legal process and judicial decision, additional tribunals should be furnished. At the present time there is a crying need of at least 3 commissioners in addition to those already authorized, and more are desirable. Kadiak, Unga, and St. Michaels are central points about which are grouped business enterprises which employ large numbers of men and from which supplies are distributed to miners, fishermen, hunters, traders, and the native people of wide sections of the country. Many other places, like Chilkat, Klawak, Howkan, Yakutat, Nutchek, Kenai, Carmel, Bethel, Point Hope, and Anvik, ought at least to have legally constituted justices, constables, and lockups.

In response to my request Judge Bugbee, of the United States district court, has made some very valuable suggestions upon the legal complications of our present law and procedure, and of remedial legislation needed, which I have attached hereto as Appendix C. The district attorney's letter, Appendix B, heretofore referred to, also gives a carefully digested résumé of these matters, both of which ought to receive candid consideration. The importance of modifying the methods of drawing juries, of changing the requirements as to legal qualifications, of reducing the number requisite to constitute a legal grand jury, can not be overestimated. No careful observer, with opportunities for seeing the serious deficiencies of our cast iron code, which, like the laws of the Medes and Persians, changes not, though conditions of life and business in the Territory are continually changing, can fail to comprehend the fact that a complete revision of our laws is absolutely essential to the proper protection of the people and their rights, and the development of the vast natural resources of the country. Four methods of reaching the desired results have been discussed or suggested, of course through legislation. Some think that a full territorial government ought to be given with the machinery for elections, a territorial legislature, territorial courts, a delegate in Congress, and a national appropriation to defray expenses. It may be premised in the beginning that without such appropriation the territory could never survive its first anniversary without bankruptcy, since most of the business is done by foreign firms and corporations and the products of

the fisheries and mines and other business enterprises are exported before an assessment could be made, and there will be very little real or personal property in the country for some years. Besides, the influential parties interested in western Alaska are not likely to look favorably upon such a proposition, and, whether desirable or not, such a consummation is not likely to be realized.

Others propose a code especially adapted to the needs of Alaska, embracing such additions of governmental machinery as may be required. This proposition commends itself to very many of the people of the Territory as the best thing at present attainable. It is true that when once launched it would be inflexible until further legislation could be secured, which, the experience of the past teaches us, is not always to be had on call. But present relief is always grateful.

Others still advocate continuing the effort to mend up our present inconsistency by adding here and subtracting there, until we secure beauty and symmetry in a system of patchwork, all of which would be well enough if within the range of possibilities. But when we realize that the only legislation we have been able to obtain from Congress in 7 years having anything like a general application was the town site and land bill, and consider that this bill aims rather to meet the wants of business firms than the requirements of individual settlers, a sense of hopelessness as to success in the patchwork business comes over us.

The fourth and last proposition is that a commission largely local in its make-up be appointed by the President and vested with authority and charged with the duty of making regulations in minor matters pertaining to the government of the Territory, which, subject to the approval of the President, shall have the force and authority of law until action disapproving the same shall be taken by Congress in the ordinary forms of legislation. That said commission should assign boundaries to civil and political divisions within the Territory when not otherwise assigned; have appellate jurisdiction to locate streets and highways; constitute a board of public instruction, and as such have immediate control of educational matters and the expenditure of moneys appropriated for schools, subject however to the approval of the Commissioner of Education; constitute a board of appeal on questions of local taxation and voting rights; to make regulations for the preservation of the public health; to determine the location of cemeteries; to be *ex officio* a board of public charities; to make an annual report to Congress, and perform any other duty assigned it by that body.

Such a commission would only be useful to meet emergencies of neglect or failure on the part of the National Government to provide suitable laws, and only temporary at that. Just as soon as the law-making power of the United States took action, the temporary regulation of the commission would cease to have force, and the commission itself would disappear on the complete organization of the Territory. Whether or not the commission would work a benefit to Alaska depends very largely upon the care and wisdom bestowed upon the drawing of the bill and the selection of the men to constitute commission.

These several propositions are submitted for what they are worth. That something should be done, and that speedily, is the opinion of all who are conversant with the perplexing situation.

SETTLEMENT OF THE PUBLIC LANDS.

A report of the business of the local land office at Sitka for the year ending June 30, 1891, shows:

Applications for patents for mineral lands pending July 1, 1890.....	1
Applications filed during the year.....	10
Adverse claims—	
Pending July 1, 1890	1
Filed during the year	7
Dismissed.....	1
Patents issued during the year	4
Applications for which purchase money was paid during the year.....	11
Amount of purchase money paid.....	\$2,307.50

The foregoing formal entries in the land office indicate a settled purpose to purchase and secure titles. A much larger number of preliminary notices of claim to mineral lands have been filed in the several recording districts. After the first notice is filed and the claim staked off, a certain amount of assessment work, as it is called, is done upon the ground in development or improvements, and the rights of the claimant are preserved until he is ready to make his purchase of the Government.

Under the act of March 3, 1891, entitled "An act to repeal the timber-culture laws, and for other purposes," opportunities are offered to purchase certain amounts of land for the purposes of manufacturing and other business, but at this writing no completed purchase has been made. A number of applications have been filed with the marshal, but they are incomplete and imperfect, and they must be modified before final action. An application for survey of the outlying boundaries for a town site is also awaiting certain necessary formalities. When methods of procedure under the law are established and known, it is expected that applications will be frequent. It is too early for judgment upon the merits of the law, but we may hope for good results and that it will prove to be a powerful impetus toward the development of the country, though it must be admitted that its provisions are, in some respects, disappointing, to say the least. The town-site law ought to be supplemented with further legislation providing for municipal corporations and giving them power of local taxation, the control of the public streets, of making regulations for internal police, and other powers and privileges essential to good municipal government. There should also be a definition of the qualifications required for voting privileges.

PUBLIC BUILDINGS.

The buildings owned by the Government in this district and used for public purposes may be enumerated as follows, to wit:

Wrangel.—A large building occupied by the Government school, commissioner's court room and office, and a post-office—needing repairs; a dwelling house occupied by the commissioner and the deputy collector of customs for residence—needing repairs; a small building, formerly a dwelling house, now fitted up as jail or lockup.

Howkan.—Schoolhouse, in fair condition.

Juneau.—Schoolhouse, in good condition; old barracks building, worthless; three dwelling houses, in doubt as to the right of possession because of the variance in different judicial decisions affecting them.

Klawak.—Schoolhouse.

Kake Village.—Schoolhouse.

Chilkat.—Schoolhouse, unfinished.

Killisnoo.—Schoolhouse, in good condition.

Douglas.—Two schoolhouses, in good condition.

Sitka.—Custom-house, occupied for executive, clerks', and collector's offices, and residence of collector—needing repairs; barracks building, occupied as jail, United States court room, barracks for marines, and residences of marshal, judge, and district attorney—needing repairs; old governor's house, occupied by commissioner for court room and residence—very much dilapidated; warehouse and wharf—warehouse in good condition, wharf needing repairs; naval warehouse, occupied as a sick bay and for storage—fair condition; club house, rented—very much dilapidated; printing office, rented—poor condition; three dwelling houses, all needing repairs, and several other worthless structures; two schoolhouses, in good condition.

Kadiak.—Schoolhouse.

Afognak.—Schoolhouse.

Unga.—Schoolhouse.

Unalaska.—Coal house, capacity 1,000 tons, good condition. Custom-house, 18 by 24, with leanto 6 feet. Not in a condition for occupancy without repairs.

Point Barrow.—Relief Station.

Most of the buildings at Wrangel and Sitka belong to the times of the old Russian régime and some of them date back to near the beginning of the century. The better way to repair them might be to replace them with new ones; but if they are to be continued and used, early attention is important. It is a sentiment universally shared that the old Russian governor's residence ought to be rehabilitated and preserved as a relic of the past, and at the same time made useful for official residences or other Government purposes. At Juneau there should be a new court-house with jail, and also office accommodations for all the Government officers. Another schoolhouse is also needed. Jails ought to be provided for Douglas, Chilkat, Kadiak, Sand Point, St. Michaels, and other places. It is earnestly requested that a competent person from the office of the Supervising Architect of the Treasury Department be sent here to inspect and report upon the condition and needs of the public buildings in the Territory, and that he come armed with discretionary power to proceed with the work of repairs or building, so far as the known conditions warrant, and that he be instructed to report as to other matters. The longer the delay the greater the difficulty and expense. I desire to renew my recommendation that the Government wharf at Sitka be either opened up to the free use of the people, or at least that the fee charged for wharfage be very much reduced, so that the income would only be sufficient to keep the wharf in repair.

AGRICULTURE AND STOCK-RAISING.

No experiments have been tried in the cultivation of the soil of Alaska during the past year, except on the most limited scale of vegetable gardening. Fine gardens were reported in the vicinity of Juneau, in which potatoes, turnips, cabbages, cauliflowers, beets, carrots, parsnips, radishes, peas, lettuce, celery, parsley, and onions were raised with entire success. The amount of ground used for the cultivation of these root crops and vegetables in and about Sitka and other places in southeastern Alaska has been increasing steadily for several years, and the results year by year grow more satisfactory as the conditions of soil and climate are better understood. The potato bug and other pests, so

troublesome in the States, have not thus far been observed here. Strawberries have been very fine during the past season, and the quantities of salmon and huckleberries marketed by the native women have been simply enormous. All the usual edible berries of this country have been abundant. The number of cattle in the Territory has not materially changed since the last report. At Unalaska 26 head of cattle are reported, all thriving, the young cattle needing no feed in winter. At Kadiak and vicinity are reported 210 cattle, 37 hogs, 50 sheep, 6 horses, 6 goats, 40 black foxes. Chickens are raised by many of the natives with satisfaction and profit, selling for from 75 cents to \$1 each. Eggs are from 30 to 60 cents, according to the season. In the Kadiak district there is market for about 250 dressed beeves per year, at from 10 to 20 cents per pound. This country is said to be adapted to stock-raising. The winters are mild and the grass grows to such height that it is not covered by snow. Only old cows require any feed in winter. Steers and young cows remain in condition for beef the whole year. Sheep keep fat enough for mutton without hay or other feed except such as they secure for themselves in the pasture. Fresh pork brings 25 cents per pound and is not abundant. The native cattle are small and hardy. To secure the best results, all the stock should be housed and fed and improved stock imported. Some attention has already been given to this matter. A native last year sold a 3-year old steer, which had never been fed, for \$75 dressed, which was, of course, clear profit. The only reason assigned for the small amount of stock now in the country is that the natives are lazy and improvident and usually find themselves unable to wait until their animals mature. Mr. Tolman, late deputy collector at Kadiak, now at Wrangel, writes that—

Places are numerous where a person could raise from 200 to 500 head of cattle and a few places where the range would accommodate larger numbers. Wild grass can be cut for hay at most places where the ground is level enough to admit it. The growth is from 2 to 7 feet high, sometimes very thick, and composed of wild timothy and something similar to red top, and cattle prefer hay made from this grass to that imported from California.

At Sitka there are from 30 to 50 head of cattle, horses, hogs, and mules. They are fed during a portion of the winter. The markets in southeastern Alaska are mostly supplied from the States by the mail steamer. Prices of meats are higher than at Kadiak. The areas of grass land are smaller and not overnumerous, while the demand for meat is much greater than in western portions of the Territory. On the Kenai Peninsula there are quite extensive areas of pasture land, and agricultural pursuits have been followed for more than a century on a limited scale.

Reports from explorers who went into the interior from Chilkat the present season, taking horses for packing purposes, indicate fine prospects for limited farming and stock raising, and give the impression that the mosquito pest which has been so much feared will eventually be overcome; and that when the local demand is sufficient the country will be utilized for the supply of that demand.

From Wrangel it is reported that there is a fine meadow of 1,000 acres near that place, and that all the hardier berries are cultivated, while there are no less than nine varieties of edible wild berries of fine flavor and in great abundance.

From Chilkat comes the statement that land suitable for cultivation is plentiful, and crops that will grow and mature are enumerated as oats, barley, rye, beans, peas, potatoes, onions, radishes, cabbage, lettuce, timothy, and all kinds of small fruits. (See Appendix G.)

From Hoonah come similar statements, except that it is said "pasture and hay facilities, though good, are limited."

From a large number of reports from different sections of the country where different conditions are known to exist, some of which are more enthusiastic than these and others much less so, the deduction must be drawn that the agricultural and stock-raising facilities of the Territory are not unimportant or small, but that the conditions of soil and climate and the topography of the country are such that development must necessarily be slow; and that it is not likely to compete with States more favored in situation and climate in the general markets of the world for many years to come, if it ever does.

COMMERCE.

The commerce of Alaska is so largely carried on by temporary inhabitants and nonresidents, in such unusual and concealed methods, that it is especially difficult to obtain full information in regard to it. The transportation of imports and exports is partly accomplished through the agency of regular transportation lines, but to a much larger extent by the aid of special conveyances and through the mails. The internal commerce of the Territory has its more ostensible agencies in some eighty-seven trading houses located in not less than sixty towns and villages, on continent and island, from Point Barrow to the southern extremity, and from Loring to Attu. These houses are supplemented by the more picturesque Indian trader with his or her outfit and wares planted by the roadside, filling up the sidewalk, or exchanging for blankets among themselves. The Eskimo fair on Kotzebue Sound is a busy mart during the season of it—each summer. The Chilkat and Chilcoot traders, though doing less business than formerly, serve as middlemen for a considerable trade between the interior Indians and the coast tribes. The family canoe is a favorite exchange bazar. A hundred or two miles of canoe paddling, consuming days and even weeks of time, constitute no preventing impediment to commercial enterprises which involve only the value of a few peltries and their supposed equivalent of tobacco and blankets.

The trade of western Alaska and the Bering Sea and Yukon regions has for more than 20 years past been mostly in the control of the Alaska Commercial Company, who had the lease of the seal islands. They still retain most of their trading posts, but do not hold the trade so exclusively as formerly. Their general agent resides at Unalaska. Their business is organized in several divisions. The Unalaska division embraces stations at Unga, Belkofsky, Woznesensky, Marshovoi, Sanak, Akutan, Burkha, Makushin, Chernofsky, Kashega, Umnak, Atka, and Attu.

The Nushegak division has three principal stations, all on Bristol Bay, viz: Nushegak, Ugashuk, and Togiak, and three or four minor stations up the rivers.

The Kushkoquim division has three principal stations on the bay and river of that name.

The Yukon district is operated from the principal station at St. Michaels, and the minor stations located along the great river are independent trading stations and the trade is carried on in the nature of a wholesale house with its retail clients, but without the disadvantages to the wholesale establishment of competition.

The Kadiak division embraces the islands of that group, the Kenai Peninsula, the Prince William Sound, and Copper River regions.

This company employs in its business, which embraces in addition to its fur and supply trade a number of canneries, the steamers *St. Paul* and *Dora*, and schooners *Kadiak*, *Pearl*, and *Matthew Turner*, besides its fishing outfits.

The importations by the Alaska Commercial Company for the Unalaska, Nushegak, and Kushkoqvim divisions in 1890 amounted to \$97,550.04, and for the Yukon and Kadiak divisions perhaps \$150,000. The imports to the seal islands was not far from \$38,000 annually while in charge of the Alaska Commercial Company. The new company has not reported.

Other large companies doing business in western Alaska are the McCollam Fishing and Trading Company, with headquarters in Alaska, at Pirate Cove; Lynde & Hough, with headquarters at Sand Point. These firms have a number of out-stations, and employed in 1890 schooners *Czar*, *Dashing Wave*, *John Hancock*, *Arago*, *Vanderbilt*, *J. A. Falkinburg*, and *Fremont*. Their importations included supplies for their own use and for stores located at their places of business.

All the canneries of western Alaska were supplied with material and provisions by special conveyance, usually their own ships, employing in all 22 vessels not named in the foregoing list.

In southeastern Alaska the carrying business has been largely but not entirely done by the Pacific Coast Steamship Company. The imports into this section, so far as they have been definitely ascertained, amount to \$1,517,000. This does not include certain small items like mail packages and irregular transportation. If we allow \$450,000 to cover importations by these 22 cannery vessels and other means of transportation, we have an aggregate of \$2,252,550 imported into the Territory in 1890. It is likely that the estimate of the last item is too small, since Government vessels have in large measure carried their own supplies, and 41 whaling ships took not only supplies for their own use, but large quantities of trade goods, and even the sealing fleet, not less than 43 in number, must have taken with them goods and provisions of considerable value.

The products exported during the year are computed accurately so far as possible, and when estimated it is so stated. They are as follows:

688,332 cases of salmon	\$2, 753, 328. 00
4,150 pounds ivory	9, 507. 50
231,282 pounds whalebone	1, 503, 333. 00
14,800 gallons whale oil	4, 467. 00
Product of the Killisnoo manufactory	76, 000. 00
1,138,000 pounds codfish	569, 000. 00
7,300 barrels salted salmon (estimated)	73, 000. 00
Gold and silver bullion (estimated)	1, 000, 000. 00
21,596 fur-seal skins taken under lease (estimated)	647, 880. 00
60,000 fur-seal skins taken by poachers (estimated)	1, 800, 000. 00
Other furs and skins from southeastern Alaska (estimated)	100, 000. 00
Other furs from western, northern, and central Alaska (estimated)	350, 000. 00
Curios, bric-a-brac, etc. (estimated)	25, 000. 00
Other products not enumerated (estimated)	30, 000. 00
Total	8, 941, 515. 50

On this basis it would seem that the exports exceeded the imports by \$6,688,965.50.

TAXABLE PROPERTY.

It is scarcely necessary to discuss this topic, since the true condition of affairs is readily inferable from the statements of business and the references to real property to be found elsewhere in this report. But

legislation is sometimes demanded of Congress which raises questions of financial ability on the part of the people of the Territory, and it may be well to make a general statement under this caption.

Distinction ought to be made, as it is not always, between wealth, the developed resources, and the undeveloped resources of a country. However rich in possibilities it may be, unless there is an accumulation of wealth, possibilities reduced to actualities, its power to carry financial burdens may be small indeed. Such is the condition of Alaska at the present time. None of its products are retained within its borders. Its annual exports exceed its imports by nearly \$7,000,000. Its manufacturing and producing business is carried on with foreign capital, and with imported laborers, who leave the country as soon as the season's work is done. Its carrying business is done with foreign ships. No roads are built, no telegraph lines established, no permanent buildings erected, no money spent in the Territory except to carry on business with a view to the greatest immediate profit. Nothing is left in the country which can be carried away. The wealth acquired by the foreign owners of business here is only accessible where they reside. Titles to land have been withheld from actual settlers until the law of March 3, 1891, and under that law no lands have yet been taken. Hence we have very little taxable property in Alaska. The actual residents are far from being wealthy and few of them contemplate making Alaska their permanent home. Those who are thrifty and acquire something ahead proceed to put it into undeveloped mining property or invest it elsewhere, while a much larger number of the residents of the country are shiftless and improvident and acquire nothing. Some of them are natural frontier men, moving forward to newer fields as soon as one place in which they have temporarily located becomes too old and too much civilized for their tastes, accumulating no property and establishing no permanent homes. Others care only for the gratification of their appetites and the cheapest kind of clothing, and have no ambition to take a higher place in life. Whether the cause of these unfortunate conditions lies at the door of insufficient and unwise legislation or elsewhere may be left to the philosopher to determine.

FISH AND FISHERIES.

Among the resources of Alaska, and none are more important, are the products of the sea. The native population have always obtained much of their food supply from the waters and in a less degree their clothing and many of the conveniences of life. Their winter supply of food is still largely made up of dried fish, seaweed, and fish eggs, while fresh fish are eaten at all seasons of the year, not only by the natives but by all classes of people, and the abundance of this product insures the most thriftless with a ready means of subsistence.

Salmon fishing is by far the largest and most important industry. Thirty-seven canneries and 7 or more salting establishments are reported as in operation in 1890. The aggregate pack of the canneries was 688,332 cases of 4 dozen 1-pound cans, falling a little short of the pack of 1889. The amount of salted salmon was about 7,300 barrels, a little more than the year previous. These salmon fisheries represent a capital of about \$4,250,000, and they give employment to about 2,000 white laborers, 2,500 Chinamen, and 1,000 natives, and require in their business, for transportation and their work, about 100 steam vessels and 500 fishing boats. The white and Chinese laborers do not

usually remain in the Territory after the season is over. A better idea of the business and the conditions surrounding a cannery in Alaska may be obtained from Superintendent Murray's report, hereto annexed as Appendix G. Below is given a comparative statement of the canned product since 1883, viz :

Year.	Total pack.	Year.	Total pack.
	<i>Cases.</i>		<i>Cases.</i>
1883.....	36,000	1888.....	439,293
1884.....	45,000	1889.....	702,993
1885.....	74,800	1890.....	688,332
1886.....	120,700		
1887.....	190,000	Total.....	2,297,118

Allowing the average value of salmon during these years to have been \$4.50 per case, we have a total valuation of \$10,337,031 for this one export since the industry took this form in Alaska. Add to this sum the value of the salted salmon exported, and the amount used in the Territory, if that were possible, and the grand total would surprise those who have not given the subject a study.

The whaling business, carried on by the San Francisco and New Bedford fleets of 41 vessels, in 1890 resulted in a catch of 231,282 pounds of whalebone, 4,150 pounds of ivory, and 14,890 gallons of oil, worth \$1,517,307.50, all in waters adjacent or belonging to Alaska. The total catch for the last 15 years foots up 4,745,700 pounds of whalebone, 217,410 pounds of ivory, and 306,689 gallons of oil, of the total value of \$24,499,031.70.

The next important fishing industry in Alaska is the codfish business, carried on by two San Francisco firms at the Shumagin Islands and in the Bering Sea. The catch of 1890 amounted to a total of 1,138,000 fish, of the value of \$569,000. Since the beginning of the codfishing business in this Territory in 1865 the total number of fish taken is 25,723,300, of the value of \$12,861,650. The first 4 years the business did not come near to its present proportions.

That the codfishing business in Alaskan waters has not reached its proper proportions has long been known. But the extent and value of the banks were unknown until systematic investigations were made by the U. S. Fish Commission within the last few years. From its report it appears that there is a bank, called Potlatch Bank, extending northeasterly from the eastern end of Kadiak Island about 115 miles. Shumagin Bank, from 10 to 40 miles south of the Shumagin Islands, has an area of about 4,400 square miles. Albatross Bank, off the southeastern side of Kadiak, has an area of 3,700 square miles. Davidson Bank, southeast of Unimak Island and west of Sannak, has an area of 1,600 square miles. The Sannak Bank, southeast of Sannak, has about 1,300 square miles. In Bering Sea the finest cod are taken, but the boundaries of the banks are not defined. Codfish are known to abound off the shore west of Bristol Bay for more than 100 miles, and about 20 miles north of Unimak Pass eastward to Bristol Bay. Fairweather ground also gives evidence of the presence of these fish in large numbers. In several localities in southeastern Alaska cod are caught for local use, but no careful investigation has been made of the grounds with reference to a determination of the extent and value of the banks.

Herring fishing is made a business of importance only by the Alaska Oil and Guano Company at Killisnoo, and an interesting report of that

business by the president of the company, Mr. Carl Spuhn, is attached hereto as Appendix F. Herring are very plentiful in many localities. As a matter of experiment, Captain Brightman, of the Killisnoo company, came to Sitka last winter and filled his fishing scows with two hauls of his net, one of which yielded 1,500 barrels of the fish. The presence in large numbers of porpoises, sharks, halibut, and other large fish seen in various places by casual observers discloses the presence also of immense schools of herring upon which these large fish feed.

Among the food fishes most in use by the natives is the halibut. They dry them for winter use to some extent, but can usually secure all they want fresh at every season of the year. It is also much in demand for the tables of the white people. They are frequently taken of very large size, weighing more than 200 pounds, but those weighing from 50 to 150 pounds each are preferred. These fish are plentiful all along the coast from Dixons entrance to Attu Island, and when transportation facilities are better and nearer markets are found halibut fishing will become an important industry.

The yellow fish, or Alaska mackerel, as it is sometimes called, is a fine-flavored fish, fully equal to the mackerel in quality. Large schools of them are found near the Shumagin Islands and in Bering Sea for 500 miles along the west end of the Aleutian chain of islands. No regular business in taking them has been developed. Some lots have been sold in the San Francisco markets as high as \$28 per barrel.

Large quantities of eulachon are taken by the natives, in the season, and dried for winter use. This is a very fat and finely flavored small fish and appears only at certain seasons and then in immense quantities. As a food fish it is very much liked by many people.

Many other kinds of fishes are abundant, as black bass, sea and brook trout, redfish, capelin, octopus, porpoise, shark, dogfish, etc.

MINES AND MINERALS.

While it was not the mines and minerals of Alaska that first called attention to the remarkable features and characteristics of this country, the discovery of gold has had great influence in its progress and development. Our mineral resources are the subject of more discussion and still create a greater fever of excitement than any other. Furs first attracted the emigrant, and the fur business may still be considered its leading industry. The fishing interests come second, and raise the question by their magnitude and importance whether they should not be held first in estimation. After furs and fisheries statistics give mining the chief place in Alaska's industries, and the confident expectation in the minds of many people that mining interests will soon lead all others is certainly supported by numerous and suggestive indications of great wealth. Many discoveries of rich ore and placer deposits have been made within the year, and locations by scores have been recorded in the local recording districts. Eleven applications for patents of mining claims have been filed in the land office and assessment work has been done on hundreds of prospectors' claims. Placer mining has shown no abatement, and in 1890 the Yukon placers are said to have yielded a third more gold than in any other previous year. Hydraulic mining on a more extensive scale than formerly promises better results. The tunnel of the Silver Bow Basin Mining Company at Juneau has been completed and the washing of the rich deposit has been in operation for some months. The success of the enterprise is apparent, but the results in statistics do not belong in this report. At Latuya

Bay the cleanup for the last season was so satisfactory that a much larger force has been carrying on the work the present season. The managers are reticent as to the exact results. At Shuck are three principal basins filled with deposits of gravel, which appears to be rich in mineral. It is owned by the Shuck Bay Placer Mining Company. The lower basin has been tapped by a tunnel 700 feet in length, and the work of washing has begun. No cleanup had been made at last advices. Work has also been commenced upon the upper basins. The company is confident. The work at Sumdum has been carried on for some years in a desultory way with a degree of success which warrants belief in the value of the mines. Tunnels have been commenced at Salmon Creek, near Juneau, and at Sheep Creek only a little farther away, and ore of excellent quality taken out. A mill with ten stamps has been built at the latter place within the year. The Archie Campbell Mill was kept in operation during a large portion of the year. The Treadwell Mill and Mining Company have continued work to their full capacity, with results as satisfactory as ever. The 80-stamp mill of the defunct Bear's Nest Company has been divided up and removed to other places, where it will be of service. The Fuhter Bay Mine on Admiralty Island has continued its usual activity. Operations at Berner's Bay have been somewhat limited. More activity has been manifested in the Silver Bay district, near Sitka, several mines neglected for some time having been worked again. The work has, however, been on a limited scale, and it is too early to discuss results.

A comparatively new mining enterprise is the Apollo Consolidated Mining Company T. C. Mayon manager, at Unga. On the 1st of May last their tunnel had reached the extent of 900 feet, a 5-stamp mill had been erected and used sufficiently to test the ore. The mill has 5 stamps, 4 amalgamators, 1 grinding pan, 1 improved Frue concentrator, a 50 horse-power engine, and buildings enough to greatly increase its working capacity by more machinery. The tunnel work thus far has been mainly preparatory and to discover the value of the mine. The assayer gives the highest encouragement and the company have a right to expect a return of their investment at an early day. Fifteen mills for crushing ore and having the conveniences for securing the free gold and obtaining the sulphurets in a compact form for shipment represent the sum of this form of equipment in Alaska. Several mills have also amalgamators and chlorination works. Fourteen mills were reported last year, two have been since erected, and one (the Bear's Nest) dismantled. The number of stamps in the aggregate has increased from 525 to 540. Several of the small mills have not been in operation during the year.

The production of gold and silver in Alaska has been both overestimated and underestimated. Those who assume that the whole output is shipped to the mint direct and consequently reported, place the amount at \$800,000, which, certainly, is much too small an estimate. The estimate used in this report, \$1,000,000, is probably less than the amount actually produced. Successful business of all kinds is more likely to seek concealment than publicity, as to exact results, and the opportunities of individual placer miners and small firms to quietly pocket their earnings, or to dispose of them without ostentation, are ample.

Of other minerals coal alone has been mined, and that to such a limited extent that coal mining can scarcely be called a business in Alaska. A number of deposits have received attention. At Port Muller, in Herendeen Bay, the Alaska Commercial Company took out 500 tons

of soft coal during the summer and it was used at Unalaska, Belkofsky, Unga, and other stations of the company. An inspection of it in the warehouse revealed a fine-looking article, and reports indicate a free-burning lignite. It is consumed rather too quickly for steaming purpose. This mine is located quite near the Bering Sea side of the peninsula and 13 miles from Portage Bay, to which it is proposed to build a railroad and deliver the coal from the southern port. An old mine on the north shore of Unga Island has been worked to a small extent to supply a local demand. The quality of the surface croppings, which alone have been reached, is not entirely satisfactory. The Cape Lisburne coal deposit is utilized by ships in the Arctic in want of fuel, but is not of first-class quality so far as found at this date. A more extensive venture has been made at Kachemak Bay, on the eastern shore of Cooks Inlet, where are extensive coal deposits lying conveniently for mining operations. The quality of this coal does not seem materially different from that found elsewhere in the Territory. Some 3,200 acres of these lands have been claimed and the claimants are maintaining their occupation and making a show of work upon them. The tests of the quality are said to prove that in the near future, when conditions are right for it, an extensive business will grow up here. Several other deposits of coal on Cooks Inlet furnish samples of similar quality to those in Kachemak Bay. Coal deposits at Yakutat, Killisnoo, and Admiralty Island have been prospected and good samples found, but no steps have been taken for systematic development. Copper, cinnabar, iron, marble, and granite abound, and Jade Mountain, a little northward of Kowak River, is alleged to furnish immense quantities of fine nephrite, but no survey has been made with a view to determining the value of minerals in the Territory, and information as to all of them, except those mined or quarried, is indefinite and unreliable.

FORESTS AND THE PRODUCTION OF LUMBER.

The forests of Alaska form one of the prominent features of the country. Along the coast and on the islands from its southeastern boundary to Kadiak Island and the peninsula opposite is one almost continuous forest, except where the elevations of the mountain ranges prevent the growth of trees, as is the case with all mountains rising to a height of more than 1,500 feet. The interior slope of the coast range is also wooded. The vast region of the interior northward is partially covered with forest growths except the low country bordering on the Bering Sea and the Arctic Ocean. The Yukon River and its southeastern branches are fringed with dense forests, while to the northward trees become scarce and stunted as approach is made to the northern ocean. In the eastern part there are considerable growths of wood as far north as the range of mountains 50 or 100 miles from the coast.

The western part of the peninsula and the Aleutian Islands have no trees. Alder bushes fringing the streams constitute the wood supply except what comes in the form of driftwood or is transported. The timber of the southeastern portion of the territory consists of spruce, hemlock, yellow and red cedar. It is erroneous to state that the spruce is of little value. While many enthusiasts have overrated the quality and quantity of this timber, it is certainly no unimportant item. All the valleys are filled with trees of immense size and great height. Trunks from 4 to 6 feet in diameter, straight and limbless to the height of 40 feet, are common. Trees seen from the decks of steamers along

shore are usually of smaller size and limbed to the ground. The spruce makes fine lumber. Hemlock is also quite abundant, and affords excellent lumber for outdoor uses, linings, and studding. Yellow cedar is the most valuable timber and the lumber manufactured from it is much sought. It does not occur in inexhaustible quantities, but in the aggregate there is a large amount. It is found upon all the islands of the Alexander Archipelago and not much elsewhere. The red cedar tree is more frequently met with than the yellow cedar in some portions of the southern islands, but is not so valuable. The forests of the interior are spruce, hemlock, birch, poplar, and other deciduous trees. There are thirteen mills for the manufacture of lumber in the territory, twelve of which are in the southeastern portion. The lumber business has been harassed by the unfortunate conditions of land titles and most of the lumber used has been imported from the States. Those who have endeavored to supply the demand for it from the Territory are now involved in suits for timber depredations. The depredations reported in 1890 by Timber Agent Gee, including all previous acts by these parties, are as follows:

	Amount.	Value.
Sitka Milling Co., Sitka .....feet..	213,600	\$4,272
Presbyterian Mission, Sitka .....logs..	35	.....
Theodore Haltern, Sitka .....feet..	1,700	68
Lake Mountain Mining Company, Sitka .....do..	150,000	1,850
Alaska M. & M. Co., Douglas .....do..	5,014,000	184,000
Eastern M. & M. Co., Douglas .....do..	300,000	7,500
Alaska F. O. & G. Co., Killisnoo .....cords..	2,200	6,050
S. B. B. Mining Co., Juneau .....feet..	80,000	480
Wilson & Sylvester, Wrangel .....do..	1,000,000	} 7,300
.....logs..	3,000	
Alaska T. & L. Co., Shakan .....feet..	800,000	14,800
N. P. H. P. Co., Klawak .....do..	218,000	3,270
Edward Cobb, Shakan .....do..	25,000	750
Wm. Duncan, Metlakahla .....do..	3,000,000	20,000
Total .....	.....	250,340

LABOR SUPPLY.

The laborers of Alaska may be divided into three classes: White men, who receive large wages as skilled workmen; Chinamen, who usually work at specialties and in the canneries on contract; and natives, who form much the larger class, and are employed in various ways. The white laborers are quite generally employed as mechanics and artisans, foremen, and leaders of gangs. They are also employed when great responsibilities are thought to be resting upon the workmen, and if special trustworthiness is required. These responsible places are given to natives only after they have won special confidence, and then only rarely. Chinamen are cooks, waiters, and specialty workers in canneries. Most of the work of making, filling, and preparing cans for the market in the salmon-packing establishments is done by them. The natives do much of the fishing for the canneries and salteries, serve as boatmen, do all kinds of packing, work in the mines as common laborers, are wood choppers, and do any other work coming to them. White laborers command from \$3 to \$5 per day, natives from \$1.50 to \$3. Much of the fishing by natives is done by the piece. Some 2,500 Chinamen were employed by the canneries last year. The labor supply has been equal to the demand, and is likely to be so while there is so large a laboring class as the native population of this

Territory to draw from. They are, however, quite independent, and if prices do not suit they are able to live in their old ways upon fish, seaweed, and blubber.

Very little friction has occurred between employers and their employés. At Chilkat, where three canneries are located, the natives became dissatisfied with the prices paid for fish, and combining this grievance with an imagined infringement of their rights in the occupation of certain fishing grounds, they threatened to destroy the fishing nets of the cannery companies. Their attitude became so menacing that serious trouble was feared. Both the natives and the superintendents finally expressed a wish that the governor would come and see if the difficulties could be dispelled. Accordingly the U. S. S. *Pinta*, Captain Farenholt commanding, having the governor, the United States district attorney, and the captain of marines and a few of his men on board, steamed up Lynn Canal, and quietly dropped anchor at Pyramid Harbor. The natives for 25 miles around were called together, and a 2 days' conference closed with handshaking and a dispersion to their homes. The natives were a little sullen and declined to sell any fish at the prices offered, but all has since been quiet, and violence is not feared. The *Pinta* made a second trip to the scene of trouble 2 months later, and reported no apparent danger.

SHIPWRECKS.

Many vessels not enumerated below received injuries more or less serious during the last year, but the following were reported as total losses, to wit:

Spencer Beard, a 7-ton prospecting boat, lost at Tigalda Island in the spring of 1890.

The *Oneida*, a ship of 1,130 tons, while carrying a cannery outfit to Thin Point, was lost in the fog in May, 1890, and went ashore at Sanak Island. There were 77 Chinamen on board, and nearly all were lost. It was reported a total loss.

Schooner *Edward K. Webster* ran ashore near Coal Harbor, on Unga Island, and was reported a total loss, condemned and sold for \$300, but afterwards got off the rocks and taken to San Francisco by the purchasers.

The *Thomas Pope*, a tender to the whaling fleet in the Arctic, on the 28th day of August, 1890, was wrecked at Point Hope. The wreck and cargo were sold for \$525, but for some cause the court set the sale aside and allowed \$300 salvage.

The whaling bark *Eliza* became unmanageable, and was wrecked on St. Lawrence Island, October 11, 1890. Loss total and no insurance.

Schooner *Premier* went ashore in a gale of wind in clear weather, April 6, 1891, at Ramsey Bay, near Cape Johns. There were about 35 men on board, who were saved and taken to Seattle by U. S. revenue marine steamer *Bear*. The captain sold the vessel and cargo to the superintendent of the cannery at the port of departure, then went to San Francisco, reporting his vessel and cargo a total loss. How serious the damage does not appear.

Schooner *Sadie F. Caller* went ashore at Chignik Bay, April 6, 1891, and was a total loss. Insurance, \$9,600.

Fishing schooner *Dashing Wave* was wrecked on Hair Seal Cape, April 16, 1891, and was a total loss. Insurance, \$7,000.

The *Mary Allen* went ashore at Sand Point and was condemned and sold.

Whaling schooner *Silver Wave* during a heavy gale was driven ashore at Point Barrow and reported a total loss.

Marine underwriters are questioning the advisability of taking risks on vessels going into Alaska waters until better surveys are made.

TRANSPORTATION AND MAIL FACILITIES.

Transportation and travel in Alaska is effected almost entirely by the use of water craft of some kind. Travel into the interior is undertaken only for purposes of hunting, exploring and prospecting for minerals, and the lines of travel for these purposes are, for the most part, along streams navigable by small boats or rafts. No railways have been built or seriously contemplated. No wagon roads of importance have been opened. Fortunately, however, much of the country is accessible by water, and the settlements are mostly upon the shores. Transportation facilities include not only all the lines of public conveyance, but all the private vessels and small boats, from the large ocean steamers of the Pacific Coast Steamship Company to the Indian canoe.

Southeastern Alaska is very well supplied by the Pacific Coast Steamship Company's steamers, which make fortnightly trips from San Francisco and Portland to Sitka and way points during the year, and weekly trips in summer. Freight vessels with coal, powder, and supplies generally, for canneries, mines, and mercantile establishments make irregular trips as business demands it. The English bark *Martha Fisher*, 811 tons, direct from Liverpool, arrived at Killisnoo June 3 freighted with coal, and left June 30 with 800 barrels of oil and 700 tons of guano.

There is also said to be quite a smuggling fleet of schooners from Fort Simpson, bringing spirituous liquors, breech-loading firearms, and perhaps other contraband goods into the Territory.

Central, western, and northern Alaska are supplied largely from San Francisco, by vessels of the Alaska Commercial Company and the North American Commercial Company, the whaling, sealing, cannery, and codfish fleets, and Government vessels plying in Bering Sea—some 155 in number last year and perhaps 180 in 1891. These vessels took freights and passengers, in accommodation, to a limited extent, and never refused to carry mails without compensation. Many of these vessels, especially those going into the northern waters, stop at Unalaska on their way. In 1890 74 vessels called there. During the year the mail service continued as before reported, but a much desired change was inaugurated to take effect on the 1st day of July, 1891, which can not be more clearly explained or more concisely stated than in the following letter from the office of the Second Assistant Postmaster-General:

WASHINGTON, D. C., May 18, 1891.

SIR: Referring to your recommendation, I have the honor to inform you that an order has this day been issued to contract for mail service once a month from April 1 to October 31, inclusive, in each year, from July 1, 1891, to June 30, 1894, on route 78099, Sitka, by Yakutat, Nutchek, Kadiak, Unga, Humbolt Harbor, and Belkofsky, to Unalaska.

Very respectfully,

J. LOWRIE BELL,
Second Assistant Postmaster-General.

His Excellency LYMAN E. KNAPP,
Governor of Alaska.

The establishing of this mail route is received with much rejoicing by the people, who have long felt the need of some regular means of communication with central and western Alaska. It is hoped that the

country will be developed, government become more efficient, and the convenience of many people served. The North American Company's steamer *Elsie* has made regular trips since July 1, according to contract, and a larger steamer more suitable for the accommodation of the traveling public is promised for the next season.

Previous to the establishment of this mail route the Alaska Commercial Company endeavored to serve the public as mail carriers without compensation, and in 1890 their Unalaska office delivered 2,200 packages of mail matter to individuals, besides many sacks of mail to vessels intact. The same office also received and mailed at San Francisco, the nearest post-office, some 3,000 mail packages. The same company also received and delivered mail at each of their principal stations in the other districts. Other companies and all ships coming from San Francisco carried and delivered mail according to their opportunities and convenience. The number of Government post-offices in the Territory at the present time is 18, a small number for the accommodation of this vast country, but such an advance has been made within the last year that the people do not feel inclined to complain.

POPULATION.

The census of Alaska is not yet completed, and consequently its enumeration of the people is not available for our study of this subject. The advance bulletin of population indicates a slight falling off in the number of our native tribes. The enumeration was incomplete and some of the figures published ought to be revised. The number of people accredited as belonging to the Tsimpseans and Hydah tribes is manifestly erroneous, and in the case of the former it is admitted by the special agent. The error grew out of the absence of a very large number of people at the time of the enumeration. It may be stated generally that however faithful and thorough an enumerator may be, no complete and accurate record of Alaskan natives can be secured in summer time, when the villages are so largely deserted for the hunting and fishing grounds.

The white population of southeastern Alaska is considerably larger than 10 years ago, but it is still small, only about 1,900 persons. There are also some 327 Chinamen, 2 Japanese, and 4 colored persons, making a total, with the 5,834 natives, of 8,038. There is a very large falling off in the number of Aleuts, from 2,451 in 1880 to 1,000 in 1890. This discrepancy is in part accounted for in the inaccuracy of the earlier census. We have very few figures from the Eskimos and interior Indians, but such as are given disclose a very great diminution, as we had reason to expect from the reports constantly reaching us of the great comparative death rate among these peoples. The total population of Alaska may be estimated at 33,000.

The white population of Alaska is nearly one-half foreign born, and very many have never been naturalized as citizens of the United States.

CONDITION OF THE NATIVES.

The change of conditions from year to year is not so marked as to call for special comment, but in the settled portions of the country, that is, along the coast and upon the islands, there is constant progress in civilization and improved conditions of life. The agencies at work for the uplifting of these peoples are effective and doing much good, while business enterprises, employing them as laborers and coming in contact

with them in a business way, infuse them with civilized ideas. It is unfortunately true that bad ideas are also inculcated and immorality and vice go hand in hand with civilization to such an extent that many good people become disheartened and incline to surrender to the discouragements. But there should be no such impatience. Their progress out of darkness and degradation toward the light of a higher civilization compares most favorably with the darker ages of the early history of Germany and England. They are surely coming, and only patience and perseverance and the coöperation of good people everywhere, and especially the aiding hand of the Government extended as heretofore, but more liberally, in facilities for an enlightened government and their education in good things, will tell upon them in the near future more effectually than ever before.

As was stated more in detail in the last report, these people are in a very sad physical condition. Disease and death that ought to be averted by medical skill are doing their terrible work among them as never before. Hospital treatment alone would be effectual for the eradication of their chronic and hereditary diseases, and the idea of a hospital is beyond their conception and its erection is beyond their financial ability. The Government certainly owes them this much of assistance. Otherwise they need none at present. They are self-supporting and will continue so if rightly treated and protected from the rapacity of unprincipled men.

As to their moral condition I see no reason for changing my opinion as expressed last year. Slow and gradual improvement must content us, for we are not likely to realize more. In the accessible portions of the Territory there is probably very little danger of further trouble in the matter of submission to properly constituted authority. The people are peaceable and kindly disposed, measurably honest, and have great respect for the Government. If spirituous liquors can be kept away from them lawlessness need not be feared and crime will be reduced to a minimum.

A DEFINITE POLICY NEEDED.

Our statesmen of a century ago were excusable for adopting a policy toward the aborigines of the country which made the Indian tribes little less than domestic nations and the individual members of those tribes quasi foreigners, or at least having a divided allegiance. The policy was adopted under the stress of circumstances, compelling the Government to seek peaceful relations with organized bands of savages who might be useful as allies, but dangerous as enemies. That policy once fully established could not be abandoned at will, and the system and its natural sequences have ever since been continued, a fruitful source of trouble and danger, and a most perplexing problem for the Government.

There is less excuse for errors of policy in dealing with the aborigines of Alaska. Their conditions are entirely different. Their habits of life are unlike the habits of the Indians of the plains. They are more intelligent, settled, and reliable. They live in fixed abodes and are accustomed to independent and self-sustaining ways. They have already made great strides toward the American civilization. The Government is not embarrassed by treaties with them or other precedents of recognition of tribal relations, and it has a fair and open field for inaugurating a system which shall yield better results than the old one.

For nearly a quarter of a century of national responsibility for the welfare of the native peoples of Alaska we have neglected to fix upon a definite policy of treatment. But longer evasion is impossible. The time has come when a position must be taken.

The natives consider themselves the true owners of the country, with all its accompaniments of soil, forests, streams, and navigable waters. Its game, fish, and vegetable growths are their personal property. The white man is an invader to be tolerated as a matter of necessity, or perhaps as a matter of advantage. As a conquered people they bow to the inevitable and will accept such a place in the legal structure as shall be accorded them.

The sentiment of the white people in the Territory is divided. Some regard the natives as an inferior order of beings whose rights are not to be considered. With them the question is one of might, not right. Others recognize their subordination to the Government, which is at all events *de facto*, and still think the natives are citizens. They may be under disabilities of ignorance and barbarism. They may not yet have attained to that degree of civilization which qualifies for the intelligent exercise of some of the privileges of citizenship. But they are to be treated as minors or persons under guardianship. When the disability is removed full privileges follow without legal process or formality other than a declaration to that effect.

THEIR PRESENT LEGAL STATUS.

The position of the Government, as indicated by the rulings of executive officers, has been far from uniform. Whether this variableness indicates an uncertainty as to what the true legal status of the Alaskan native is, or only lack of information, is not my province to determine. However, this possible uncertainty and the necessity of a clear apprehension of the case by those having charge of legislation for Alaska render a few remarks upon this subject appropriate.

The third article of the treaty ceding Alaska to the United States is as follows:

The inhabitants of the ceded territory, according to their choice, reserving their natural allegiance, may return to Russia within three years; but if they should prefer to remain in the ceded territory, they, with the exception of the uncivilized tribes, shall be admitted to the enjoyment of all the rights, advantages, and immunities of citizens of the United States, and shall be maintained and protected in the full enjoyment of their liberty, property, and religion. The uncivilized tribes will be subject to such laws and regulations as the United States may from time to time adopt in regard to aboriginal tribes of that country.

The words "may return to Russia" are used in the signification of "may remove to Russia."

These reservations of the rights of citizenship are as complete and certain for those to whom they are applicable as the sanctions of law can afford. The Russian Government, whose rights, duties, and obligations to the people were, by the treaty of purchase, assumed by the United States, apparently regarded all those who become christianized, that is, who joined the Russian Church, as citizens of the Russian Empire. If so, all these Christians, of whatever nationality, come within the reservation. It is certain that the Russian Government did not mean to include any members of the church in the class denominated "uncivilized tribes" in the third article of the treaty. At the present time it is claimed there are 11 Russian churches in Alaska, with 67 parishes presided over by unordained assistants, having a membership of

about 12,000. At the time of the transfer it was not less than now, and from the time of the Reverend Bishop Veniaminoff, himself a creole, to the present, the church officers and priests were largely of native and mixed blood. The Russian Church is a Government institution and officers in the church under Russian rule are officers of the Government. If these people are to be treated as citizens and other natives excluded from like privileges, where is the justice to those who are more intelligent, better educated, and having a higher civilization?

Acts of legislation having a possible bearing upon the subject ought to be noted. March 3, 1873, an act was passed amending section 1 of the Alaska act of 1868 so as to extend over the country sections 20 and 21 of the intercourse act of 1834, prohibiting the introduction and disposition of spirituous liquors therein, and Judge Deady correctly reasons that the extension of these two sections only excludes the idea of the intention to extend the whole act. In fact, the courts have repeatedly held that Alaska is not Indian country. (*In re Sah Qua*, 1 Alaskan Rep., 6; *Kie vs. United States*, 11 Saw. 579; *United States vs. Savoloff*, 2 Saw., 311; opinion of Judge McAlister, 7 West. Rep., 6.)

In 1884 the act known as the "organic act" was passed, making provision for the collection of revenues, the regular works of courts of justice, and the administration of the government, without reservations or qualifications as to persons or classes of inhabitants over whom the civil government was to have jurisdiction and authority. Since the passage of this act, if not before, the courts have assumed jurisdiction to try Indian offenders according to the laws of the United States, in no case allowing local customs among the tribes or native people to have any determining influence upon questions of punishment, as has ever been the case in the States where the tribal relation was recognized.

Elsewhere the Government has recognized the tribal relation and the existence of independent powers with whom treaties could be made, until the law of March 3, 1871, which declared that—

No tribe or nation within the territory of the United States shall be acknowledged or recognized as an independent nation or power with which the United States may contract by treaty; but no obligation of any such treaty lawfully made and ratified with such Indian nation or tribe prior to March 3, 1871, shall be thereby invalidated or impaired.

In the case of Alaskan Indians no such obligations had been taken.

This tribal relation, constituting an organized nation or power within the United States, allegiance to which was not forbidden, led to the unfortunate complications of decisions ousting the courts of jurisdiction to try offenders who had been dealt with according to the usages of the tribe to which they belonged. And even those Indians who had severed their tribal relations and submitted to the jurisdiction and laws of the United States were denied the rights of citizenship upon the theory that they were "born members of an independent political community" and could not become citizens by their independent volition, but that there must also be an assent in some form on the part of the United States. (*McKay vs. Campbell*, 2 Saw., 118; *United States vs. Osborne*, 6 Saw., 406; *Elk vs. Wilkins*, 112 U. S., 94.)

The argument of these decisions leads to the belief that their birth in a quasi foreign jurisdiction constituted their sole disability, and in the case of *Elk vs. Wilkins* the decision was even then by a divided court.

Several cases have arisen where remnants of tribes had ceased to exist as tribes and the members were recognized as citizens of the United States. In *United States vs. Elm* (23 Int. Rev. Rec., 419) Judge

Wallace held that an Indian of such a remnant, born in the State of New York, was entitled to vote. In Massachusetts citizenship is accorded to the remnants of tribes never recognized by treaties or legislative or executive acts of the United States as distinct political communities. (*Danzell vs. Webquish*, 108 Mass., 133; *Pells vs. Webquish*, 129 Mass., 469; Massachusetts Statutes, 1862, chap. 184; Massachusetts Statutes, 1869, chap. 463. See also *Fletcher vs. Peck*, 6 Cranch, 87; *Worcester vs. Georgia*, 6 Peters, 515.)

The fourteenth amendment to the Constitution of the United States declares that—

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the States wherein they reside. No State shall make any law which shall abridge the privileges or immunities of citizens of the United States.

This amendment also, in section 2, apportions representation, “excluding Indians not taxed.”

Justice Harlan, in giving the dissenting opinion of himself and Justice Wood, in *Elk vs. Wilkins*, takes the ground that the exclusion of Indians not taxed implies that there are Indians who are taxed—that is, are subject to taxation—and that Indians not taxed are those who hold tribal relations. In the debates upon the civil-rights bill passed April 9, 1866, especially in the arguments of Senators Trumbull and Hendricks, who took the two sides of the question of passage, the idea is distinctly presented that the Indian, when he shall have cast off his wild habits and submitted to the laws of organized society, becomes a citizen, and that the bill, if passed, would protect him in civil rights. (Cong. Globe, first sess. Thirty-ninth Cong., p. 527.)

President Johnson, in his message vetoing this bill, says: “Indians subject to taxation are declared to be citizens of the United States.”

A committee appointed by the Senate in 1870 to inquire into the effect of the fourteenth amendment upon treaties with the Indian tribes said in their report:

Indian tribes within the limit of the United States and the individual members of such tribes, while they adhere to and form a part of the tribes to which they belong, are not, within the meaning of the fourteenth amendment, subject to the jurisdiction of the United States, and therefore such Indians have not become citizens of the United States by virtue of that amendment.

The report closes with these words:

When the members of any Indian tribe are scattered they are merged in the mass of our people and become equally subject to the jurisdiction of the United States.

Judge Cooley, commenting on citizenship conferred by the fourteenth amendment, distinctly avers that the aboriginal inhabitants of the country are not citizens while they preserve their tribal relations and recognize the headship of their chiefs, but when the tribal relation is dissolved, when the authority of the tribe is no longer recognized, and the individual makes himself a member of the civilized community, the case is wholly altered.

He no longer acknowledges a divided allegiance; he joins himself to the body politic; he gives evidence of his purpose to adopt the habits and customs of civilized life; and as his case is then within the terms of this amendment, it would seem that his right to protection in person, property, and privilege must be as complete as the allegiance to the Government to which he must then be held; as complete, in short, as that of any other native-born inhabitant. (2 Story's Const., Cooley's ed., sec. 1933, p. 654.)

If, then, when the facts are found, by the decisions of the courts or otherwise, it shall appear that the Alaska natives do not sustain the

tribal relation, that they do not exercise a divided fealty, that they are subject as individuals to the jurisdiction and laws of the United States, why are they not entitled to all the privileges of citizens? And if any portion of them are found to come within this category, are they not protected in the rights of citizenship by the fourteenth amendment?

The fact remains, however, that a sweeping grant of the privileges of the electoral franchise to the natives of Alaska would be disastrous. As a rule they are not educated up to ideas of our form of government. They are yet children in many respects, and would only become tools in the hands of demagogues. They do not understand our language. Many of them are still in barbarism and savagery. And the complication of all these circumstances, the doubt and difference of opinion as to their present legal status, their ignorance and barbarism, call most earnestly for a definition of their position by legislative enactment. It is not necessary that legislation shall attempt to perform impossibilities, or grant concessions not warranted by the conditions, or override the Constitution. Citizenship might be conceded and constitutional limitations placed as guards around the ballot box. Educational and language tests might be sufficient protection, and if not, some others might be devised.

The Metlakahla Indians stand in a different relation from the others, because they are not natives of Alaska or of the United States. Although here by the permission of the Government, and they sustain no tribal relation, and are so far civilized that they would be worthy and desirable citizens, yet under existing laws they must remain aliens until a new generation born upon the soil takes the place of those now on the stage of activity. An enabling act is necessary for their naturalization. (18 Op. Atty. Gen., 557; *In re Langtry*, 12 Saw., 467; *In re Frank Camille*, 9 Saw., 541; *In re Ah Yup, Chinaman*, 5 Saw., 155.)

LEGISLATION.

Although the pressure upon Congress, rendering it difficult for that body to give attention to the comparatively unimportant business of this remotest and most thinly settled of all the Territories, is recognized, yet we are constrained to make the appeal as our only resource of relief from the oppressing conditions weighing upon us. While comparatively unimportant, the preceding pages show that the interests of Alaska are not really insignificant either to the persons interested or the Government of the United States.

But how can Alaska secure a proper hearing? Every Senator and Member has his constituency and a pressure of demands upon him with regard to which he has immediate and special duties. Besides, the Territory of Alaska is so remote, so little known as to its needs and conditions, so helpless to make its wants felt because without Representative or Delegate, and has no political influence to throw into the scale. Resting under the burden of such difficulties, is it asking too much if we urge that special committees be appointed in Congress to have charge of Alaskan legislation and Alaskan interests? The duties of such committees would compel thought and investigation into matters pertaining to the Territory, and in the absence of a Representative would secure for them recognition as entitled to speak for it with authority.

Suggestions as to the revision of laws pertaining to the administration of justice have been made elsewhere in this report and need not be repeated. A few matters not thus discussed may be briefly alluded to as follows:

Provision ought to be made for the incorporation of municipalities, providing for the holding of elections, defining qualifications for voting, and giving such powers as are usually exercised by such municipalities elsewhere.

It is one of the important and pressing calls that Government hospitals be established for the accommodation of natives afflicted with chronic and hereditary diseases, and provision should be made for keeping insane persons and paupers.

Better transportation facilities should be provided for the use of the civil government in the performance of official duty.

Attention should be given to the public buildings without delay. A careful inspection and estimates of expense should be made by some competent person from the office of the Supervising Architect at Washington.

Agricultural experiment stations ought to be established at different places within the Territory.

The coast surveys ought to be hastened. The report of 10 shipwrecks in the waters of the Territory within a year, made a second time, is certainly a very convincing argument.

The legal and political status of the native population ought to be defined by legislative enactment.

More commissioners and deputy marshals are very much needed, and justices of the peace ought to be authorized and provision made for their compensation. Jails or lockups and other conveniences for the performance of the duties of commissioners and justices of the peace should be furnished.

Very respectfully, your obedient servant,

LYMAN E. KNAPP,
Governor of Alaska.

Hon. SECRETARY OF THE INTERIOR,
Washington, D. C.

APPENDIX A.

Synopsis of meteorological observations taken on board the U. S. S. Pinta, at Sitka and other places in southeast Alaska, from July 1, 1890, to April 30, 1891.

Month.	Temperature of the air.			Temperature of tidal water.			Number of days—			Remarks.
	Maxi-mum.	Mini-mum.	Aver-age.	Maxi-mum.	Mini-mum.	Aver-age.	Fair.	Cloudy.	Rain or snow.	
1890.	°	°	°	°	°	°				
July	80	51	58.0	68	54	60.5	8	15	8	
August	74	44	56.5	63	48	55.0	17	8	6	
September...	70	42	53.3	57	49	54.0	5	2	23	Thunder and lightning on 26th and 27th.
October	66	34	45.8	54	46	48.8	11	2	18	
November...	61	34	43.3	50	42	45.7	6	3	21	
December...	46	22	35.1	45	38	42.8	11	5	15	Thunder and lightning on 5th and 6th.
1891.										
January.....	57	32	40.5	44	41	42.2	2	5	24	
February....	59	17	34.5	43	37	40.0	17	3	8	
March	58	20	39.1	44	39	41.9	5	10	16	
April	59	33	43.4	47	39	44.3	12	9	9	
May	60	36	50.8	.....	.....	.....	16	7	8	
June	63	48	56.5	.....	.....	.....	15	13	2	

NOTE.—The *Pinta* was absent from Alaskan waters during the months of May and June, 1891, and the record for those months were kindly furnished by Capt. F. H. Harrington, of the Marines.

APPENDIX B.

SIR: It is impossible to fully give you my views on the various questions referred to in your letter, hereto annexed, without making my communication inconveniently long.

Your special anxiety to learn what steps have been taken to enforce the law against the sale of intoxicating liquors within the Territory of Alaska is but natural.

The violations of the liquor laws have been a source of more anxiety and labor to all the officials in Alaska than any, I may safely say than all, other violations of law combined.

I find public sentiment almost a unit against the present prohibitory laws, and against the enforcement of the same.

When I entered upon the discharge of my duties in Alaska I found the opinion and practice prevailed that United State commissioners had no jurisdiction to try offenders for any violation of the liquor laws. The defendant, if probable cause were shown, was held for trial in the United States district court. This practice resulted in burdening the district court with a large number of petty cases, the expense of each prosecution was enhanced tenfold, and, worse than all, the cases being tried to a jury, very many of the defendants were acquitted.

After a careful examination of the laws of the State of Oregon, and of the revised statutes conferring jurisdiction upon our commissioners, I advised them in all minor cases, such as selling liquor to Indians, to try, and if found guilty, sentence the offender as provided by law, and this practice has prevailed for more than a year. These cases being generally tried to the court, without the intervention of a jury, convictions are more certain and less expensive.

There is a grave doubt as to just what jurisdiction our commissioners have. This should be set at rest by legal enactment and their jurisdiction should be materially extended.

There now are, and for many years have been, within the Territory two or three breweries manufacturing and selling beer for other purposes than those prescribed by the statutes. There are also many persons openly engaged in selling intoxicating liquors contrary to law. These facts I have laid before each grand jury, advising them that it was their sworn duty to indict all such persons. Yet in every instance they not only have refused to indict, but have refused to hear any testimony upon the subject whatever. Some of these grand juries have been composed of the best representative citizens of the Territory, yet the sentiment is so universally against the enforcement of the present liquor laws that no indictment can be had and no conviction secured except where the liquor has been sold or given to a native. In the latter cases the sentiment of all the better classes of citizens is in favor of a rigid enforcement of the law. The consequent result is that comparatively little intoxicating liquor finds its way to the natives.

SALMON-FISHING LAWS.

A few complaints have been made to me that traps were being placed in streams in violation of law. An investigation has not shown the facts to exist, and I know of no violations of the salmon-fishing laws.

QUALIFICATION OF JURORS.

I do not believe permanency of residence should be a prerequisite to eligibility for jury service in Alaska, and for the following reasons:

The citizens of Alaska being deprived of the right of elective franchise and self-government, every citizen of the United States found in or owning property in Alaska is equally interested with the permanent resident in seeing all laws enforced. The general land laws have not as yet been extended to Alaska. Her people have little encouragement to make here a permanent home. As a result her population is largely transitory or migratory in its nature, and many of her best and most influential citizens are not permanent residents. These people would be of material assistance in enforcing the law were they competent to sit as jurors. I believe any citizen of the United States who is a competent juror in his own State ought to be a competent juror in Alaska. In that event terms of court could be held in western Alaska, where they are so much needed; whereas, under the law as it now is, it is very difficult, if not absolutely impossible, to secure a sufficient number of competent jurors to hold a term of court in that section of the Territory.

GRAND JURIES.

Not less than sixteen grand jurors under the Revised Statutes, and seven under the Oregon code, are necessary to constitute a panel. I believe the lesser number would be more convenient and efficient in all respects.

DRAWING JURIES.

Among the inconveniences in drawing juries, not experienced elsewhere, may be mentioned, first, the limited number of competent jurors to be found within the Territory; second, the vast extent of territory from which they must be drawn; third, the inadequate means of communication between the various settlements, and consequent long delays in impaneling a jury.

DIFFICULTIES IN ADMINISTERING LAWS.

In addition to the difficulties above suggested in the way of a satisfactory administration of the laws of the Territory are the laws themselves, and the anomalous modes of procedure under which we are compelled to operate.

Perhaps the perpetrators of one-fourth of the crimes committed in Alaska are punishable under the United States statutes, while the other three-fourths are prosecuted under the laws of the State of Oregon in force on the 17th day of May, 1884. To illustrate: prosecutions for the crimes of murder and larceny are under the Revised Statutes, while those of shooting or stabbing with intent to kill, burglary, etc., must be under the laws of Oregon. The forms of procedure in the one case and the other are radically different, from the drawing of the juries to the entering of final judgment or sentence.

The form of procedure is always one of uncertainty. Each judge, in turn, upon assuming the duties of his office, and after months of laborious effort in trying to reconcile the organic act, the Revised Statutes, and the code of Oregon, has designa-

ted some form of procedure to be followed, with no assurance that his successor in office can conscientiously adopt the same form. And indeed so uncertain is the meaning of the language of the organic act that each judge who has occupied the bench since civil government was extended to Alaska in 1884 has placed a different construction on various clauses in the act.

Again, the criminal laws in the Revised Statutes which are applicable were passed nearly 100 years ago, and the penalties prescribed are so severe that an enforcement of them is obnoxious to the advanced civilization of to-day.

Another serious obstacle to the enforcement of law in Alaska is the lack of all jail facilities in many important places, such as Unalaska, Unga, Kadiak, and Chilkat.

The officers at these and other places are powerless to enforce the laws because they have no kind of lock-up in which to confine prisoners. Again, to illustrate; suppose the deputy marshal at Unalaska arrests a criminal and takes him before the United States Commissioner. If it be a case of misdemeanor and the commissioner imposes a fine, the defendant simply refuses to pay it. The marshal is unable to detain him until such time as he can be sent to Sitka, and the result is he is turned loose. The deputy marshal at Chilkat a few months ago arrested a native for stabbing another. He was guarded for days awaiting some means whereby the marshal could send him to Sitka. Before the arrival of the mail steamer the prisoner escaped and has not since been apprehended. Murderers are permitted to go at large at these places because the officers can do nothing with them in case of arrest. All this could be obviated by the outlay of a few hundred dollars at each place in building cheap wooden jails suitable for temporary use only.

REMEDIES SUGGESTED.

I have enumerated a few of the disadvantages under which we labor.

For the relief desired I would unhesitatingly advocate the enactment of a code of laws by Congress for the government of Alaska. Our position is so peculiar, both politically and geographically, so different from that of any State or Territory of the Union, that I know of no code of laws now in existence which would meet the demands of Alaska. To that end I would suggest the appointment, by the proper authority, of a committee of 3 competent attorneys, residents of the Territory, one of whom should be the presiding judge of the district court, whose duty it should be to compile and report a code of laws for the government of Alaska, to be submitted to Congress for its approval and adoption.

If the above recommendation be deemed inexpedient, then I would suggest the repeal of the present prohibitory liquor laws, and in place thereof the adoption of a high license law, with strict prohibition of sale or gift to a native or minor of any intoxicating liquor, with jurisdiction conferred on United States commissioners to try all cases of violation of the law.

I would favor making the laws and procedure of the State of Oregon as they now exist the law and procedure for Alaska, with perhaps a very few exceptions.

If neither of these suggestions be deemed practicable, I would at least urge the amendment of the organic act so that there could be no doubt as to which of the laws of Oregon and which of the laws of the Revised Statutes are applicable to Alaska. I would also have it clearly defined as to the procedure governing our courts.

I am, very truly, yours,

C. S. JOHNSON,
United States Attorney.

The GOVERNOR.

APPENDIX C.

SITKA, ALASKA, *August 17, 1891.*

DEAR SIR: I am in receipt of your favor of recent date requesting such suggestions from me as might seem important in regard to the laws of Alaska and their enforcement, and submitting certain specific questions relating thereto.

It is difficult for me to give categorical answers without a preliminary statement involving suggestions upon other topics than those you have propounded.

The general laws of the State of Oregon, in force May 17, 1884, were, by the terms of our organic act, "declared to be the law in the district so far as the same may be applicable and not in conflict with the provisions of this act or the laws of the United States," and the organic act further declared that "the laws of the United States not locally inapplicable to said district and not inconsistent with the provisions of this act, are hereby extended thereto."

As I have had occasion to say before, in a recent decision, "it is left for the court

to decide, as occasion may demand, whether or not any particular law of the United States is or is not 'locally inapplicable, to the district; whether any general law of Oregon is or is not in conflict with the provisions of the organic act or the laws of the United States, and whether it is or is not applicable to the Territory of Alaska.' It has been held by the United States circuit court for the district of Oregon that it is only when the laws of the United States are silent or make no provision on the subject that resort can be had to the laws of Oregon, so far as they are applicable; that no law of Oregon is to have effect in Alaska if it is in conflict with a law of the United States, and that there is such a conflict, within the meaning of the statute, not only when these laws contain different provisions on the same subject, but when they contain similar or identical ones (*Kie v. U. S.*, 11 Sawy., 579).

Adherence to this rule has raised so many questions, caused so many inconveniences, and presented so many difficulties as to call imperatively for changes in our organic act.

Take, for instance, the crime of murder. If committed within any place or district of country under the exclusive jurisdiction of the United States (and Alaska has been held to be such), it is a capital offense and has no degrees. Under the Oregon laws of the crime is either murder in the first degree, punishable with death, or murder in the second degree, punishable with imprisonment for life.

Nearly all the homicides committed within the district have been, so far as my judicial experience goes, committed by natives or Indians so called, and in their view justified by their traditions or religion. They fall more naturally within the definition of murder in the second degree, under the laws of Oregon, and have no elements even of the crime of manslaughter; yet, as they lack the deliberate and premeditated malice, which to an Alaskan jury would justify hanging, the verdict of guilty of manslaughter is invariably found, and the punishment that follows is inadequate to the offense.

So also as to the crime of rape, generally committed in this district upon or by natives. It is a capital offense under United States laws (which are the laws to be followed here), while in Oregon it is punishable by imprisonment; and I venture to say that the crime must be unparalleled in its atrocity to insure a verdict of guilty at the hands of an Alaskan jury.

The laws of Congress upon these subjects have not been changed since their enactment in 1790, although the States and Territories have provided wiser and more humane laws. In this regard it is just that Alaska should be placed upon the same plane as the State of Oregon.

Let me cite as another instance the difficulties met with in impaneling jurors. Under the acts of Congress when grand and petit jurors are to be drawn, the names of not less than 300 qualified persons are to be placed in the box at the time of drawing. Under the Oregon laws the jury list contains the names of 200 persons, if there are that number of qualified jurors upon the assessment roll. In Alaska there is no assessment roll. Two terms of the district court are held here in each year, each requiring the drawing of a jury. It is simply impossible to comply with the United States law and place the names of 300 qualified persons in the box at each drawing, without calling upon citizens residing a thousand miles away, whom in most cases it would be difficult and inordinately expensive, if not impossible, to summon to court.

The laws of the United States also require not less than sixteen grand jurors, while the laws of Oregon require but seven. I believe the latter number to be sufficient to inquire into all crimes committed within the district. Jurors who serve in Alaskan courts have, generally speaking, the same qualifications and are entitled to the same exceptions as they would have under Oregon laws, and although the duration of residence as a qualification for service might be shortened to advantage, I do not see any necessity for a change in other respects.

I think it would greatly facilitate the administration of justice in this district if by act of Congress we were permitted to conform the practice, pleadings, and mode of proceeding in criminal, as in civil, cases to the practice, pleadings, and mode of proceeding in Oregon courts; and if the general laws of Oregon in force at this date were, so far as applicable, declared to be the law of this district, instead of the laws of that State in force at the date of the organic act, we might be still further benefited by taking advantage of the advanced legislation of that State, at least until we are furnished by Congress with a code of our own.

Our four United States commissioners, residing respectively at Sitka, Juneau, Wrangell, and Unalaska, have the jurisdiction and powers of commissioners of the United States circuit courts, and exercise all the duties and powers, civil and criminal, conferred on May 17, 1884, on justices of the peace under the general laws of the State of Oregon, so far as such laws may be applicable in this district and not in conflict with the organic act or the laws of the United States. They have also the jurisdiction in testamentary and probate matters which in Oregon was then given to the county judges of that State, with certain other powers. The organic act further provides that they shall each receive a salary of \$1,000 per year and the usual fees of United States commissioners and of justices of the peace for Oregon. In respect to these fees there has been a continued controversy with the Departments at

Washington, still remaining unsettled. Their jurisdiction as justices of the peace permits their deciding certain civil cases involving not more than \$250 and a limited class of petty criminal cases. If their jurisdiction were increased so as to include cases involving not more than \$1,500 or \$2,000 and cases of misdemeanor, with an appeal to the present district court where proper, it would augment their authority and importance throughout the Territory and lead to a more summary adjustment of civil rights and more speedy punishment for crime, both of which are very desirable. In such case the salaries of these officers should be increased to, say, \$2,500 per year in lieu of all fees.

There does not seem to be under existing laws any available means of effecting the organization or incorporation of municipalities or towns within this district with power to make or enforce needful police, sanitary, or financial regulations. Such legislation has long been needed and would be a fitting supplement to the townsite laws recently enacted by Congress.

All the needs I have mentioned might easily be supplied by amendments to our organic act which could hardly meet with opposition in Congress.

The following is a may be briefly recapitulated as follows: First, the application of existing Oregon laws in place of those in force May 17, 1884, so far as applicable. Second, the special application of the existing laws of Oregon, in place of the United States laws, as regards the crimes of murder and rape. Third, the special application of the laws of Oregon relating to grand and petit juries and their mileage. Fourth, increasing the jurisdiction and salaries of United States commissioners. Fifth, conforming the pleading, practice, and mode of proceeding of all Alaskan courts in criminal cases to those of the courts of Oregon. Sixth, giving to our people the power to create municipalities.

Upon the other matters suggested in your letter I do not care at present nor in this manner to express my opinions.

I am, very respectfully, yours,

JOHN S. BUGBEE,
United States District Judge, District of Alaska.

Hon. LYMAN E. KNAPP,
Governor of Alaska.

APPENDIX D.

The following is a statement of the sealing catch and vessels employed in the business considered irregular, and for the most part illegitimate, during the years 1886, 1887, 1888, and 1890, so far as positive information has been received. Reports for 1889 give only a list of vessels, some thirty-five in number. No seizures were made in 1888, 1889, and 1890, except one in the last year, which was afterwards released without legal proceedings.

List of sealing vessels fitted out at Victoria, 1886.

Schooner.	Catch.	Seized.
Active	1,300	.....
Alfred Adams	1,400	.....
Black Diamond	728	.....
Mountain Chief	Unknown.	.....
Triumph	Unknown.	.....
Kate	* 3,000	.....
Onward .....	.....	† 400
Favorite	2,881	.....
Mary Ellen	3,553	.....
Thornton .....	.....	† 500
Grace	1,700	.....
Sayward	1,600	.....
Anna Beck	1,142	.....
Dolphin	2,100	.....
Wrestler	Unknown.	.....
Mary Taylor	Unknown.	.....
Caroline .....	.....	† 700
Pathfinder	1,700	.....
Treasure	Unknown.	.....
Lookout	Unknown.	.....
Theresa	2,200	.....
Total	23,304	1,600

Skins taken, 24,904.

* About.

† Seized by Corwin.

Figuring on the *Mountain Chief*, *Triumph*, *Wrestler*, *Mary Taylor*, *Treasure*, and *Lookout*, the average catch of those vessels, coming back at the end of the season, viz, 1,942 skins, would be 11,652 more on a total catch of 35,556 skins for 1886.

List of sealing vessels fitted out at Victoria, 1887.

Schooner.	Catch.	Seized.
Grace		769
Dolphin		618
Anna Beck		336
W. P. Sayward		477
Mary Taylor	1,000	
Rustler	Unknown.	
Black Diamond	595	
Mary Ellen	2,000	
Active	Unknown.	
Favorite	2,200	
Theresa	1,246	
Kate	Unknown.	
Lottie Fairfield, landed.	2,997	* 443
Pathfinder	2,300	
Alfred Adams		1,379
Champion	Unknown.	
Penelope	1,500	
Mountain Chief	1,200	
Triumph	480	
Ada		1,876
Total	15,518	5,898

* Stored by the *Fairfield* at Unalaska, but seized.

Skins taken, 21,416.

Figuring for *Rustler*, *Active*, *Kate*, and *Champion* the average catch of these vessels returned at the end of the season, viz, 1,552, would add 6,208 to the above, representing a total catch of 27,624 skins for 1887.

List of sealing vessels fitted out at Victoria, 1888.

Schooner:	Catch.	Schooner:	Catch.
Alfred Adams	Unknown.	Rosie Olsen	Unknown.
Halcyon	Unknown.	Vivier	2,800
Pathfinder	Unknown.	Mary Ellen	1,800
Annie C. Moore	Unknown.	Penelope	2,000
Sapphire	Unknown.	Favorite	6,664
Champion	Unknown.	Mary Taylor	Unknown.
Arranah	Unknown.	Theresa	Unknown.
L'Houlette	Unknown.	Mollie Adams	Unknown.
Maggie Mac	647		
Triumph	2,500	Total	16,411
Ariel	Unknown.		

No seizures were made in 1888.

A report from Victoria dated September 27, 1888, says that the total catch was 19,038 skins; this would make a total number of only 2,627 skins for all those vessels whose catch is unknown, which, in view of the large individual catches reported above, is very unlikely. We think, on the contrary, that the total catch was nearer 30,000 skins than 20,000.

APPENDIX D.

Catch of the Victoria (British Columbia) sealing fleet, 1890.

Name.	Spring catch.	From Sand Point.	From Bering Sea.	Total.
Mary Taylor.....	104	302	592	998
Pathfinder.....	235	716	984	1,935
Viva.....	262	436	2,015	2,713
Triumph.....	182	1,018	473	1,673
E. B. Marvin.....	368	878	918	2,164
C. H. Tupper.....		571	796	1,367
Kate.....	156	511	230	897
Favorite.....	356	981	1,116	2,453
Aurora.....	165	797		962
Minnie.....	300	764	1,467	2,531
Sapphire.....	119	1,378	745	2,242
Katiene.....	380	345	945	1,670
Lily.....	122		500	622
Penelope.....	148	578	445	1,171
W. P. Sawyard.....	154	339	459	952
Maggie Mac.....		752	1,200	1,952
Juanita.....	97	311	770	1,178
A. C. Moore.....	90	703	630	1,423
Theresa.....	175	569	450	1,194
Ariel.....	220	349	1,130	1,699
Wanderer.....	62			62
Sea Lion.....	254	817	774	1,845
Venture.....	94			94
Walter Rich.....	122	562	633	1,317
Beatrice.....	220	710	854	1,784
Adela.....	116		431	547
Mary Elten.....	115	951		1,066
Ocean Belle.....		946	480	1,426
Indian schooners.....	400			400
Total.....	5,016	16,284	19,037	40,337

Catch of balance 1890 fleet.

Allie I. Algar.....	2,560	Helen Blum.....	337
Schooner White (Seattle).....	1,200	C. G. White.....	555
Henry Dennis.....	1,640	C. H. White.....	453
Kate and Amy.....	300	J. Hamilton Lewis.....	2,596
San Diego.....	1,000	Mattie Dyer.....	75
Sutherland.....	1,138	Lillie L.....	1,035
San José.....	890		
City of San Diego.....	18	Total.....	13,797

APPENDIX E.

POINT BARROW, August 1, 1890.

SIR: I have to report for your information the following circumstances connected with the death by shooting of Joseph Georges (a native of the Azore Islands) and the subsequent events attendant upon the execution of his murderer.

The report herewith is a true and correct one, and I am very desirous that this fact should be established, inasmuch as contrary, misleading, and untruthful statements have been and are likely to be made by whalemens and others.

Respectfully,

HENRY D. WOOLFE.

Capt. M. A. HEALY,
U. S. Revenue Steamer Bear.

REPORT ON SHOOTING OF JOSEPH GEORGES.

Joseph Georges, alias Enos, a native of the Western Islands, aged 23, was engaged by Henry D. Woolfe, representing the Pacific Steam Whaling Company, to work and whale for the company at their Point Barrow station.

In accordance with the usual practice and customs prevailing at whaling seasons, two women were hired for each canoe. One of the women had for several months prior to the commencement of the season left her Indian buck, and at the request of the company's representative was engaged by one of the prominent Cape Smythe natives to work for the Pacific Steam Whaling Company. When she was hired it was made proviso and distinctly understood that the buck had no claim upon her services. (This rule was invariably followed wherever natives, male or female, were hired for the canoes.)

The company sent their canoes out to the floe, and there was at no time any trouble expected.

During the month of May it was ascertained that the buck had made frequent visits to the canoe in which Joe was working. He made frequent demands for the return of his woman, as he called her, but she disclaimed the demand, and her sister supported her.

As, however, the woman was found to be lazy and almost useless, the company's representative sent for her, told her that "the buck was troubling the canoe crew," that "she was not wanted," and offered to pay her for services rendered. However, she refused to leave the canoe, and promised to work.

Meanwhile some other natives heard the buck making threats against Joe's life and informed him. The next visit the buck paid to the canoe Joe told him "to take the woman, and if he heard that threats were made again a sound thrashing would be given." The woman again refused to go with the buck, and at length one or two of the natives told him that "if he did not desist troubling the company's crew they would make him get off the floe."

On May 27 (a month after leaving the house) Joe came in off the floe to dry his clothes, and on that day the woman was told to leave and she went to the village.

May 28 Joe returned to the floe with his canoe crew, and the woman, having no food or means of obtaining any in the village, returned to the canoe.

No more trouble was experienced by the crew and matters were supposed to be settled.

Early on the morning of June 11 the company's sleds were going out to the floe with provisions, and when about $1\frac{1}{2}$ miles from the house Joe's body was found on the ice road. The deceased lay on his back, his rifle in the case under him unslung, his mittens grasped firmly in the right hand. From this position it was conjectured that he had been shot from behind, and this was verified by the murderer's confession.

By noon news had reached the village, and simultaneous messengers arrived at the company's house with the tidings. A sled was sent and at 1:30 p. m. the body was brought in. Upon examination by the white men the cause of death was found to be the result of two bullet wounds. The first, which must have caused instant death, was effected by a bullet (.4570 calibre) entering the body at the spinal column, smashing one of the vertebræ, passing out a few inches above the navel, and carrying the large intestine (upper colon) in its path. The second wound was in the throat, the bullet plowing through the brain, crushing the skull. But little blood was visible either on the body or on the ice.

A coffin was constructed and Joe's remains carried to a resting place.

The prominent natives of the village were sent for, and upon arrival requested to secure the murderer.

One and all, male and female, expressed their sorrow and regret that Joe had met with such an untimely end, and evinced great desire to have the murderer caught.

It was ascertained from a boy and girl, who were on the ice with a sled and heard the shots, that the following incidents transpired:

Joe left the edge of the floe about 7 a. m. When a short distance off the woman ran after him, and arriving at least 5 miles from the village in company with the before mentioned boy and girl, the party met the buck going out to the floe. The native boy asked the buck, "Where are you going? What are you going to do?" and he replied: "Nothing; I going to shoot seals." He was told there was no water. Joe had walked ahead of the sled alone, and the party followed him. When the sled reached Joe's position the boy and girl heard the buck ask Joe for the woman. Joe said, "Take her now; I don't want her; and if she goes to the house she'll get paid; but don't bother me," and Joe walked on. The sled, boy, girl, and the woman again went ahead, Joe following, but as they lost sight of the buck they imagined he had gone to the floe.

In a few minutes they rounded a cake of ice, and then heard two reports. Being scared they hastened to the village, the woman hiding herself in a house having a panel door. Within an hour the buck, after a search for the woman, came to this house and threatened if the woman did not come out to shoot her through the door. She obeyed and the pair started off inland from the village. Joe's body was found by a party of natives who went to the village with the news, told the white men living there, and they, as before mentioned, informed the company's representative.

Upon request, the head natives of the village sent a search party for the mur-

derer. This party consisted of two women, and by informing the fellow that a search was being made for him on the ice and at Point Barrow, enticed him back to the village. The return was at 4 p. m., and as three white men approached him at the tent door he tried to raise his rifle to shoot them. However in this design he was frustrated, as upon the movement being made he was seized and his hands tied.

Brought to the company's house, a court of white men and six of the head natives of the village was convened. One of the most intelligent natives questioned the murderer, and upon his own confession and no other defense beyond the lie that "Joe had his gun ready lifted to shoot him," the unanimous verdict and desire of the court was that "speedy and effective punishment was a just due for the crime." Indeed, it was with the utmost difficulty that a restraint was put on one of the natives to prevent the fellow from being stabbed in the house.

At 8 p. m. nine well-directed bullets put an end to the murderer's existence.

It was developed that the murderer had in 1886 tried to shoot another white man. In 1888, to the eastward, he and his father (deceased) leveled their guns at another white man; and so late as last winter (1889) he had been prevented from killing a village native.

Neither the murderer nor his father was a native of the village of Ötjliavie or Nuwuk. They belonged to Liverpool Bay, and had been driven from that place and Herschel Island for killing women.

Indeed, such was the dislike the natives had for him that no one would allow him to live during the winter in a house. The woman and he occupied a snow house and an old tent.

One and all of the natives were gratified that the villages were rid of the presence of this fellow. The woman went this summer to Herschel Island to remain for the winter.

APPENDIX F.

KILLISNOO, ALASKA, August 18, 1891.

SIR: In reply to your request for statistics about Killisnoo, I beg to submit the following:

Name, Alaska Oil and Guano Company; incorporated under the laws of Oregon; capital stock, \$75,000.

Business, fishing and trading.

Fish found in our surrounding waters are herring, salmon, codfish, halibut.

The trade in furs is small and does not exceed \$1,500 per year. Bear, mink, land otter, and beaver are the principal furs.

Fishing is our main business. We caught from August 4 to December 26, 1890, 53,000 barrels, equal to about 5,300 tons, or 42,400,000 herring.

Fishing fleet consists of 3 steamers, 4 scows, and 2 fishing gangs of 2 boats each. A fishing gang has 12 men.

We made 157,000 gallons of oil, about 3 quarts of oil to 1 barrel of fish.

We made 700 tons of guano; 100 barrels of fish give about 2 tons of guano. We do not manufacture all the fish into guano, as our drying facilities are not large enough. The demand for guano is, however, increasing, and we may in the near future double our drying capacity.

We put up in 1890 about 900 barrels of salt salmon and 400 half-barrels of salt herring.

The oil is sold in San Francisco and Portland and partly shipped to England. Sandwich Islands is the best market for the guano, and the fruit-growers of California are beginning to call for it. Attached hereto is an analysis and report of Prof. E. W. Hilgard, of the California University. We shipped 700 tons of guano, per *Martha Fisher* to England.

The price of oil varies from 25 cents to 32½ cents per gallon, according to quality.

Value oil produced in 1890	\$45,000
Seven hundred tons of guano, at \$30	21,000
Salt fish	10,000

Total.....	76,000
------------	--------

We employ about 45 white men, 50 Indians, and a few Chinamen.

Indians receive from \$1 to \$1.50 per day of 10 hours; white men, skilled labor, from \$60 to \$100 per month and board, and unskilled labor \$40 to \$50 per month.

Martha Fisher, English bark, 811 tons register, arrived at Killisnoo June 3, with coal, and left for Liverpool direct, June 30, with 800 barrels of oil and 700 tons of guano. The *Martha Fisher* is the first vessel which sailed to England direct from southeast Alaska laden with Alaska products.

Killisnoo has a post-office, a Government school, and a Greek Oriental church. The mail steamer calls regularly twice a month.

The white population consists only of people employed by the company and their families. Indian population in villages of the near neighborhood is about 800. The Indians are fairly honest and fair workingmen.

There is no agricultural land in our vicinity, but Indians raise a fair quality and crop of potatoes and turnips.

There are no silver or gold mines. There are said to exist some coal mines in our vicinity, but so far the work has been of a prospecting nature only.

If there are any other points you wish information about, kindly let me know.

I have the honor to be, respectfully, yours,

CARL SPUHN.

Hon. LYMAN E. KNAPP,
Governor of Alaska.

Analysis of fish guano manufactured by the Alaska Oil and Guano Company.

The air-dried substance contains:

	Per cent.
Moisture.....	12.99
Nitrogen:	
Nitrogen as ammonia (ready formed)	.62
Nitrogen, organic.....	10.83
Nitrogen, total	11.45
Nitrogen, total calculated as ammonia.....	13.91
Phosphoric acid:	
Soluble.....	1.91
Reverted	3.29
Insoluble	.80
Total.....	6.00
Available.....	5.20
Potash	.87

APPENDIX G.

CHILKAT, ALASKA, July 16, 1891.

DEAR SIR: Herewith find answers to questions of circular of June 25.

No. 1. Name of our corporation, Chilkat Canning Company; business, packing salmon; help employed, 55 white men employed in fishing; wages paid, \$35 per month, with a bonus of 2cents for every red salmon caught and delivered into cannery. Chinese employed inside of cannery, 47; their work all done under contract, that is, they take the salmon as delivered from the fishing boats, clean and process, and turn them out all boxed up and ready for market for 48 cents per case.

Capital invested in plant and to run business, \$70,000; product of year's business, 20,000 cases of salmon; value of same, \$80,000; markets in the East and England. One steamer of 80 tons gross employed as fish tender, built 1 year ago at a cost of \$16,000; transportation is all done by Pacific Coast Steamship Company's steamers.

No. 2. White population during fishing season, 300; during winter not to exceed 50. Native population probably 1,200 to 1,500; tribe, Chilkats; language, Klinket; general appearance, good for Indians; churches, none; priests or missionaries, none; effect of religion and education on this tribe, can't say, as the missionaries are too busily engaged in Africa or elsewhere, and Uncle Sam apparently is too poor to furnish them with a teacher, although if the writer's memory serves him right there was a very liberal appropriation made for educational purposes in Alaska for this present year; so, then, Uncle Sam will have to be exonerated and the blame placed where it belongs why this tribe gets no benefits from the educational fund.

Morality low; honesty very good while you can keep your eye upon them. Villages, there are several; houses, the Indians seem to imitate the whites to a great extent; all houses built lately by this tribe are much better than formerly and after the style of the whites.

Traditions, they are chock full of them. Feasts or potlaches are very frequent; dances, occasionally. Their ideas very good for Indians.

Chiefs here are a thing of the past. The more the Indians are brought in contact with the whites the less power the chiefs have. In this tribe the chiefs have no influence worth speaking of. The younger Indians are all very apt at picking up the English language, and are anxious to adopt English ways.

No. 3. Bears, brown and black, wolverines, all the different kinds of foxes, beavers, mink, sable, and mountain sheep are plentiful.

Fish: Can't pass an opinion on any other than salmon; they are quite plentiful, but think there are many other kinds, such as halibut, codfish, and herrings.

No. 4. Mines: None in this immediate vicinity. Harbors: one good one, known as Pyramid Harbor.

No. 5. Land suitable for cultivation is plentiful; pasturage and meadow lands considerable. Climate good for 5 months. Cost of preparing land for plow, \$50 per acre. Crops that will grow and mature, oats, barley, rye, beans, peas, timothy, potatoes, onions, radishes, cabbage, and lettuce, and all kinds of small fruits such as raspberries, strawberries, gooseberries, and currants in the domestic line, besides the berries that grow wild, and they are plentiful.

Postal facilities we have none further than what is given us through the courtesy of the pursers on the mail steamers, who make it a point of duty, for which they get no recompense, to bring our mail from Juneau and deliver it to us. Mr. Bucknam and Mr. Curtis are deserving of this community's heartfelt thanks for their extreme kindness in attending to our mails. Nearest post-office, Juneau. About 300 would use the mails if established. The writer would suggest that this place have at least a 6 months' service during the year, beginning middle of April, up to middle of October.

No. 7. Fifteen or sixteen steamers during season.

No. 8. Inward freights, about 1,500 tons; outward, 2,500 tons; amount of freight bills, \$40,000.

Yours truly,

HUGH MURRAY.

Hon. LYMAN E. KNAPP,
Governor, Sitka, Alaska.

APPENDIX H.

The following statement, furnished by the honorable Commissioner of Education, was received since the body of my report was prepared for transmission and too late for incorporation in it except as an appendix, to wit:

STATEMENT WITH REGARD TO THE CONDITION OF THE ALASKA FUND, 1891.

Amount of appropriation, \$50,000.

Contract schools.—Terms of payment, \$10 per quarter for each day pupil instructed and \$30 per quarter for each boarding pupil maintained and taught during each of the three quarters ending December 31, 1890, March 31, 1891, and June 30, 1891.

Presbyterians.—The maximum amount reserved for the industrial school at Sitka was \$15,000. In accordance with the terms of the agreement, the total amount paid was \$13,470, closing the account for the year with a balance of \$1,530 in favor of the fund.

The amount reserved for the school at Point Barrow (\$2,000) has not yet been paid as no reports have been received.

Moravians.—The amount reserved for the schools at Bethel and Carmel (\$1,000 each) have been paid on receipt of reports.

Catholics.—The amounts reserved for the schools at Nulato and Kosoriffsky (\$1,500 each) have not yet been paid as no reports have been received.

Episcopalians.—The amount reserved for the school at Anvik (\$1,000) and for the school at Point Hope (\$2,000) have not been paid as no reports have been received.

Independent.—The maximum amount received for the school at Metlakahla was \$3,000. In accordance with the terms of the agreement, the total amount paid was \$2,190, leaving a balance in favor of the fund of \$810.

Congregationalists.—The amount reserved for the school at Cape Prince of Wales (\$2,000) has not been paid as no reports have been received.

Reformed Episcopalians.—The amount reserved for the school on St. Lawrence Isl. and (\$1,000) has not been paid as the building has not yet been erected.

United States public day schools.—The following are the places at which public schools have been established, with the salaries paid at each place :

Sitka, School No. 1	\$900
Sitka, School No. 2	720
Juneau, School No. 1	900
Juneau, No. 2	720
Douglas, School No. 1	720
Douglas, School No. 2	900
Killisnoo	720
Wrangell	900
Jackson	900
Afognak	1,000
Kadiak	1,200
Unalaska	1,000
Karluk	1,000
Kalawack	1,000
Hoonah	200

All of the above salaries have been paid, with the exception of \$100 due the teacher at Jackson, and the salary of the teacher at Afognak, from whom no vouchers have been received.

Salaries of officials.

General agent	\$1,200
Assistant general agent	1,200
Superintendent Sitka district	480
Two counsellors for three months	100

The above salaries have been paid, with the exception of \$120 due the superintendent of the Sitka district and the salaries of the two counsellors.

After all outstanding liabilities have been met and all bills for supplies and incidentals have been paid, there will still be a very small balance of a few dollars.

REPORT

OF THE

SECRETARY AND TREASURER OF THE HOWARD UNIVERSITY.

HOWARD UNIVERSITY,
Washington, D. C., August 1, 1891.

SIR: In obedience to the conditions of the sundry civil appropriation bill, approved March 3, 1891, requiring the proper officers of Howard University to report to the Secretary of the Interior how the appropriation is expended, I have the honor to make the following statement:

It is to be observed that only a part of the salaries of the officers, professors, teachers, etc., of Howard University is paid out of the appropriation made by Congress.

Of the salary of the president of the university, who receives \$4,000 per year, there was paid out of the Government appropriation.....	\$2, 800
The secretary, treasurer, and business manager receives \$2,000 per year, of which sum there was paid out of the appropriation	1, 400
Six professors, whose annual salary is \$1,500 each, with the use of a house, received from this appropriation \$1,200 each, making a total of.....	7, 200
Two professors, whose annual salary is \$1,500 each, with house room, received from this appropriation \$1,275 each, making a total of	2, 550
Three lady teachers who received \$800 per year each, were paid out of the appropriation \$720 each; total.....	2, 160
One lady, whose annual salary is \$900, received from the appropriation	810
One teacher, whose salary is \$1,000 per year, received from this appropriation	900
One professor, whose annual salary is \$1,500, was paid from the appropriation	900
One teacher, whose salary is \$600 per year, was paid from the appropriation	510
One teacher, whose annual salary is \$800, received from the appropriation..	400
The librarian and assistant to the secretary, whose salary was \$1,000 per year, was paid from the appropriation	670
Total amount paid out of the appropriation as above.....	20, 300

I wish to add that monthly pay rolls, made out in duplicate, have been forwarded regularly through the Department of the Interior to the Treasury Department, and have passed an examination by the First Auditor and the First Comptroller, strictly in accordance with the rules and regulations governing the disbursing officers in the United States Treasury Department.

The apparent disproportion of amounts was not designed, but a matter of convenience at the time of making the pay rolls.

From September, 1890, to February, 1891, the pay rolls of the University varied from \$2,000 to \$2,630, while in March it was \$1,440, and in May \$1,770.

The appropriation for repairs of buildings was used as follows :

Repairs to heating apparatus.....	\$308.68
Lumber	250.42
Paints, oils, etc	203.04
Plumbing	97.17
Wages of mechanics and laborers.....	1,540.69
Total amount.....	2,400.00

In addition to this there was expended from other funds of the university for repairs of buildings \$3,392.95.

The appropriation of \$500 for chemical apparatus was expended by the professor of chemistry, under the direction of the president of the university, in the purchase of apparatus for the use of that department.

Proposals were invited by advertisement in the Washington papers, and copies were sent to large dealers in other cities, and the lowest bids were accepted in each case. Most purchases were made of large dealers in Philadelphia.

There was expended for improvement of grounds of the university (principally in grading) the sum of \$1,439.74, of which \$1,000 was paid by the United States.

The appropriation for the industrial department was expended as follows :

Fuel.....	\$104.64
Equipment for book bindery	272.98
Supplies for book bindery	70.94
Printing press and type.....	521.23
Hardware	49.78
Lumber	207.39
Other supplies (sewing and drawing).....	70.74
Instruction	2,582.80
Janitor and fireman.....	119.50
Total	4,000.00

I inclose with this a copy of printed statement of receipts and expenditures for the year ending June 30, 1891.

I shall be most happy to make a supplemental report, if it shall seem to you that I have omitted anything that would be desirable for the Department or for Congress.

Very respectfully, your obedient servant,

JAMES B. JOHNSON,
Secretary and Treasurer.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

HOWARD UNIVERSITY.

TREASURER'S STATEMENT OF RECEIPTS AND DISBURSEMENTS FROM JULY 1, 1890,
TO JUNE 30, 1891.*Account pertaining to current expenses.*

RECEIPTS.

Balance on hand July 1, 1890.....	\$23.45
From United States for—	
Salaries	20,300.00
Industrial department	4,000.00
Chemical apparatus.....	500.00
Library books	1,000.00
Repairs.....	2,400.00
Grounds.....	1,000.00
From rents	5,698.27
From income from invested funds	10,681.54
From American Missionary Association (including donations and Stone endowment) for theological department	3,970.00
From room rents.....	1,696.00
From miscellaneous sources	391.65
From medical department,* fees, etc.....	7,042.00
From law department, income and tuition	2,194.50
From industrial department, proceeds of shops.....	105.74
From temporary loan.....	1,000.00
	62,003.12

EXPENSES.

Paid officers, professors, teachers, etc., including \$7,942 to medical depart- ment; \$3,094.50 to law department; \$3,970 to theological depart- ment, and \$950.11 to janitors and firemen	\$41,844.41
Paid industrial department expenses	4,098.88
Paid for—	
Chemical apparatus.....	499.82
Library books.....	1,000.00
Repairs of buildings, labor, etc.....	5,792.95
Improvement of grounds	1,439.74
Fuel and gas.....	1,387.55
Insurance.....	917.73
Library, cabinet, laboratory, etc.....	383.85
Miscellaneous expenses, including stationery, printing, advertising, furniture, traveling expenses, telephone, lawn mower, miscellaneous labor, etc	3,374.33
Transfer to aid account	1,200.00
(Balance on hand June 30, 1891).....	63.86
	62,003.02

* This includes \$132 interest on Stevens fund.

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

OFFICERS OF THE INSTITUTION.

Patron.—BENJAMIN HARRISON, President of the United States.

President.—EDWARD MINER GALLAUDET, Ph. D., LL. D.

Secretary.—JOHN B. WIGHT, Esq.

Treasurer.—LEWIS J. DAVIS, Esq.

Directors.—HON. JOSEPH R. HAWLEY, Senator from Conn.; HON. JOHN J. HEMPHILL, M. C. from S. C.; HON. R. R. HITT, M. C. from Ill., representing the Congress of the United States; HON. HENRY L. DAWES, of Mass.; HON. WILLIAM E. NIBLACK, LL. D. of Ind.; REV. BYRON SUNDERLAND, D. D.; HON. JOHN W. FOSTER; HON. J. RANDOLPH TUCKER; JAMES C. WELLING, LL. D.

COLLEGE FACULTY.

President and Professor of Moral and Political Science.—EDWARD M. GALLAUDET, Ph. D., LL. D.

Vice President and Professor of History and Languages.—EDWARD A. FAY, M. A., Ph. D.

Emeritus Professor of Mental Science and English Philology.—SAMUEL PORTER, M. A.

Professor of Natural Science.—REV. JOHN W. CHICKERING, M. A.

Professor of Mathematics and Chemistry.—JOSEPH C. GORDON, M. A.

Professor of History and English.—J. BURTON HOTCHKISS, M. A.

Professor of Mathematics and Latin.—AMOS G. DRAPER, M. A.

Instructor in Gymnastics.—ALBERT F. ADAMS, B. A.

Instructor in Drawing.—ARTHUR D. BRYANT, B. Ph.

DEPARTMENT OF ARTICULATION.

Professor in Charge.—JOSEPH C. GORDON, M. A.

ASSISTANTS.

Normal Fellows.—CHARLES R. ELY, B. A., Yale, 1891; GEORGE R. HARE, B. A., Amherst, 1890; OSCAR VAUGHT, M. A., DePauw, Ind., 1890; GUY M. WILCOX, B. A., Carleton, Minn., 1891; JOSEPH A. TILLINGHAST, B. S., Davidson, N. C., 1891; WIRT A. SCOTT, B. A., Univ. of Mississippi, 1891.

Instructors.—MARY T. G. GORDON; KATE H. FISH.

Normal Student.—ANNIE E. JAMESON, Boston High School, 1889.

FACULTY OF THE KENDALL SCHOOL.

President.—EDWARD M. GALLAUDET, Ph. D., LL. D.

Instructors.—JAMES DENISON, M. A., Principal; MELVILLE BALLARD, M. S.; THEODORE A. KIESEL, B. Ph.; SARAH H. PORTER.

Instructors in Articulation.—MARY T. G. GORDON; KATE H. FISH.

DOMESTIC DEPARTMENT.

Supervisor.—WALLACE G. FOWLER.

Attending Physician.—D. K. SHUTE, M. D.

Oculist and Aurist.—FRANCIS B. LORING, M. D.

Consulting Physician.—N. S. LINCOLN, M. D.

Matron.—Miss ELLEN GORDON.

Assistant Matron.—Miss MARGARET ALLEN.

Master of Shop.—ALMON BRYANT.

Farmer and Head Gardener.—EDWARD MANGUM.

THE HISTORY OF THE DEAF AND DUMB

BY THE REV. JOHN H. GARLAND

IN TWO VOLUMES. VOL. I. THE DEAF AND DUMB IN AMERICA. FROM THE EARLIEST PERIOD TO THE PRESENT TIME. WITH A HISTORY OF THE DEAF AND DUMB IN EUROPE, AS FAR AS THE RECORDS EXTEND.

NEW YORK: PUBLISHED BY J. H. GARLAND, 1854.

THE DEAF AND DUMB IN AMERICA. FROM THE EARLIEST PERIOD TO THE PRESENT TIME. WITH A HISTORY OF THE DEAF AND DUMB IN EUROPE, AS FAR AS THE RECORDS EXTEND.

THE DEAF AND DUMB IN EUROPE, AS FAR AS THE RECORDS EXTEND.

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REPORT

OF THE

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB.

COLUMBIA INSTITUTION FOR THE DEAF AND DUMB,
Kendall Green, Washington, D. C., September 28, 1891.

The pupils remaining in this institution on the 1st of July, 1890, numbered 81; admitted during the year, 29; since admitted, 23; total, 133. Under instruction since July 1, 1890: males, 92; females, 41. Of these 66 have been in the collegiate department, representing 24 States and Canada, and 67 in the primary department.

A list of the names of the pupils connected with the institution since July 1, 1890, will be found appended to this report.

HEALTH.

The general health of the pupils has been good during the year.

During the absence in Europe for some months of our attending physician, Dr. D. K. Shute, his duties were discharged in a most acceptable manner by Dr. L. L. Friederich.

In June last the delicate operation of removing a diseased eye was successfully performed on one of our pupils by Dr. F. B. Loring, assisted by Dr. Shute.

DEATH OF ROBERT C. FOX, LL. D.

The management of the institution sustained a severe loss in July last through the death of Robert C. Fox, who had for ten years filled the offices of secretary of the board of directors and auditor of accounts.

At a meeting of directors held on the 21st of July the following minute was adopted:

In the death of Robert C. Fox, LL. D., late secretary of the board, the institution loses an officer most highly valued and a friend most warmly esteemed. Familiar with and interested in the institution from its foundation by reason of family relations with its first president, Hon. Amos Kendall, Dr. Fox, during an active official connection of ten years, proved in many ways and on numerous occasions his intelligent appreciation of its benevolent work and his cordial sympathy with its objects.

To the members of the board Dr. Fox's death is the occasion of real personal grief, for the amiability of his character and the courtesy of his manner were such as to endear him to all who were brought into intimate relations to him.

To his widow and children the directors desire to convey the assurance of their most heartfelt sympathy in the heavy loss they have sustained, and to express the hope that strength from on high may uphold them in these days of mourning that are upon them.

COURSE OF INSTRUCTION AND LECTURES.

No essential change has taken place in the general course of instruction since 1887, when in our thirtieth report a detailed statement of the branches taught in both school and college was published.

During the past year special lectures have been given as follows:

IN THE COLLEGE.

An account of visits to schools for the deaf and associations of deaf mutes in the Northwest, by President Gallaudet.

Plagiarism, by Professor Fay.

Banks and their functions, by Professor Porter.

A summer on Roan Mountain, by Professor Chickering.

Railroads: their origin, development, and economic problems, by Professor Gordon.

The History in Words, by Professor Hotchkiss.

The Latin element in the English language, by Professor Draper.

IN THE KENDALL SCHOOL.

Life of Theseus, by Mr. Denison.

Napoleon's imperial guard, by Mr. Ballard.

Life in Siberia, by Mr. Kiesel.

Kidnaping of Charles Ross, by Mr. Bryant.

The prince and pauper, by Mr. Beadell.

GRADUATION OF STUDENTS AND PUPILS.

From a variety of causes the graduating class of the college for 1891 was reduced in number to a single student.

On this account it seemed best to omit our customary public exercises of presentation day.

The student referred to, Mr. W. W. Beadell, of Iowa, sustained the usual examination for the complete course in a highly creditable manner and received the degree of Bachelor of Arts at the close of the academic year.

It is hoped that Mr. Beadell may take part in the exercises of presentation day in 1892.

A diploma of honorable dismissal from the college was awarded to Mr. Frank G. Wurdeman, of the District of Columbia.

Certificates of honorable dismissal from the Kendall School were given to Hiram T. Wagner, George W. McDonald, Bertha M. White-lock, Alverdia T. Cornog, Mary Dailey.

APPROPRIATION BY CONGRESS FOR ARTICULATION-TEACHING.

Congress at its last session added to the usual amount provided for current expenses, the sum of \$3,000, for the expense of instructors of articulation.

This addition to the resources of the institution was intended to enable the directors to offer instruction in speech and lip reading to the students of the college, but the amount appropriated was not sufficient to provide fully for the teaching of so large a number.

Happily, however, the directors have at their disposal a small fund on which they can draw during the coming year, to supplement the

appropriation made by Congress, and they have therefore made arrangements which they believe will secure the great boon of oral instruction to all the students of the college at least for the current year.

Professor Gordon of our college faculty, who was a well-trained teacher of speech to the deaf for several years before coming to Washington, has been relieved of certain of the duties of his professorship, and has been placed in charge of the Department of Articulation. Miss Kate H. Fish, who was trained as an articulation teacher in the Clarke Institution at Northampton, Mass., and who has taught speech successfully in that institution and in the Maryland and Alabama schools for the deaf, has been engaged to assist Professor Gordon.

Miss Mary T. G. Gordon, for many years the very able oral teacher in our Kendall School, will also work under Professor Gordon's direction. He will have the further assistance of six young men, graduates of prominent colleges of our own country, whose services as normal fellows have been secured for the current year, and of one young lady, a graduate of the Boston High School, as a normal student. The names of these normal assistants will be found in the list of the officers of the institution. The services of these young persons have been secured at very moderate rates of compensation, in view of the fact that they will have opportunity during the year they are to be connected with the institution of acquiring a good knowledge of our methods of instruction and so of fitting themselves to be valuable teachers of the deaf.

RECEIPTS AND EXPENDITURES.

The receipts and expenditures for the year under review will appear from the following detailed statements:

SUPPORT OF THE INSTITUTION.

RECEIPTS.

Balance from old account.....	\$859.67
Received from Treasury of the United States	58,000.00
Received for—	
Board and tuition.....	5,303.25
Work done in shop.....	143.66
Old metal.....	40.83
Damage to grounds.....	3.00
Received from manual labor fund	335.43
Received for old surrey.....	50.00
	64,735.84

EXPENDITURES.

Expenditure for—	
Salaries and wages.....	30,671.62
Miscellaneous repairs	1,903.88
Groceries	3,490.80
Steam heating.....	1,041.58
Painting	898.05
Plumbing.....	973.00
Construction of greenhouse.....	1,136.20
Household expenses, marketing, etc.....	2,898.53
Meats	3,181.15
Bread	1,152.66
Butter.....	2,097.17
Medical and surgical attendance	474.10
Rent of telephone.....	110.00
Furniture.....	394.44
Lumber	990.40
Dry goods, etc.....	867.13

Expenditure for—

Gas.....	\$961.76
Paints.....	280.82
Feed, etc.....	794.53
Printing.....	136.75
Medicine and chemicals.....	263.93
Books, papers, etc.....	555.51
Hardware.....	371.81
Fuel.....	2,888.73
Plants, flowers, etc.....	122.45
Blacksmithing.....	102.43
Carriage and repairs.....	300.75
Manure.....	260.00
Live stock.....	560.60
Harness and repairs.....	143.37
Garden seeds, etc.....	190.69
Entertainment of pupils.....	100.00
Crockery, glassware, etc.....	268.90
Stamped envelopes.....	43.60
Potatoes.....	272.77
Illustrative apparatus.....	109.85
Ice.....	377.22
Traveling and incidental expenses of the president in visiting schools.....	199.40
Expenses, board of directors, auditing accounts, etc.....	413.00
Investment through L. J. Davis, treasurer.....	1,150.00
Balance.....	1,586.26
	64,735.84

ESTIMATES FOR NEXT YEAR.

The following estimates for the fiscal year ending June 30, 1893, have already been submitted:

For the support of the institution, including salaries and incidental expenses, for books and illustrative apparatus, and for general repairs and improvements, \$61,000.

For special repairs and improvements, \$6,000, divided as follows:

For the proper inclosure, care, and improvement of the grounds of the institution, \$3,000.

For repairs of buildings, including repairs of heating apparatus, plumbing, and sewerage, \$3,000.

The estimate for current expenses is the same in amount as the appropriation for the present year.

In the sundry civil bill of March 2, 1889, it was enacted:

That one-half of all expenses attending the instruction of deaf and dumb persons admitted to said institution from the District of Columbia under section 4864 of the Revised Statutes shall be paid from the revenues of the District of Columbia and one-half out of the Treasury of the United States, and hereafter estimates for such expenses shall each year be submitted in the regular estimates for the expenses of the government of the District of Columbia.

For two years separate estimates for the expenses of beneficiaries of the District of Columbia have been submitted, and the sum of \$10,500 has been appropriated each year for such expenses.

But to show exactly what part of the fuel, gas, provisions, wages, salaries, etc., paid for in carrying on the institution, has been for the benefit of the pupils from the District is extremely difficult, not to say impossible. And still more difficult is it to furnish separate vouchers for these articles and services. In point of fact it has been found impracticable to account separately at the Treasury for these expenditures, which in the aggregate are accounted for without difficulty. It is therefore respectfully suggested that hereafter the whole amount for current expenses be appropriated in the sundry civil bill, and that a proviso be added requiring the president of the institution to report to

the accounting officers of the Treasury Department at the end of each fiscal year the cost of educating the beneficiaries from the District as nearly as this can be ascertained. The proper proportion can then be charged to the District treasury.

The second estimate is to provide for repairs and improvements, the need for which has been growing more and more urgent for several years, some of these having now become matters of pressing necessity.

No special appropriation for repairs has been made for a number of years, and it has been necessary to leave many things in a condition far from creditable.

Among these is the fence surrounding the property of the institution on the west, north, and east. What there is left of this fence has been standing more than twenty years, and those portions still erect are rotten and almost ready to fall.

The entire length of the fence is 589.19 rods, and at \$4 per rod, which is a moderate estimate of cost, the expense of renewal would be \$2,356.76.

The balance of \$643.24 is greatly needed for the grading of certain roads already laid out, and the completion of suitable pavements near the buildings.

The second item in the estimate for repairs and improvements will certainly be not more than enough to provide for exterior and interior painting, pointing up and cleaning stone and brick work, repair of heating apparatus, plumbing, and sewerage. In many portions of our buildings there is the prospect of actual damage and loss if the repairs indicated are not speedily made.

CONGRESS OF THE DEAF AND DUMB AT GLASGOW.

On the 7th of August President Gallaudet, on the invitation of the British Deaf and Dumb Association, delivered an address to a congress of the deaf and dumb of Great Britain and Ireland, held at Glasgow, Scotland. He was particularly requested to discuss the several methods of educating the deaf now in use throughout the world, and express his opinion as to the relative value of each. It is gratifying to know that his setting forth of the advantages of the combined system as now carried on in the United States was so convincing as to lead to its adoption by the managers of a new school just established at Preston, England, notwithstanding the pressure of strong adverse efforts, coupled with conditional offers of considerable sums of money on the part of the promoters of the pure oral method in England.

INSTRUCTION OF THE BLIND AND FEEBLE-MINDED.

Provision is made by Congress for the instruction of the blind and feeble-minded of the District of Columbia in schools for such purposes in Maryland and Pennsylvania.

Application for the benefit of these provisions must be made through the president of this institution.

There have been since July 1, 1890, 23 blind persons as beneficiaries of the United States in the Maryland institution for the blind at Baltimore.

There have been 15 feeble-minded children belonging to the District in the Pennsylvania institution at Elwyn.

The provision made by Congress for the care and training of this latter class of persons is insufficient and the importance of enlarged

appropriations is earnestly urged upon the attention of Congress. At least \$5,000 should be appropriated next year for this object.

GOLD MEDAL AWARDED THE COLLEGE AT PARIS.

In February last the president of the institution received through the Department of State a diploma and a gold medal which had been awarded to the college by the managers of the Exposition Universelle at Paris in 1889. This award was made in recognition of the exceptional advance made in deaf-mute education by our college beyond that reached in any other country. This is the third time the work of the college has been so commended in foreign nations, the first medal having come from Chili in 1875 and the second from France in 1878.

All of which is respectfully submitted by order of the board of directors.

EDWARD M. GALLAUDET,
President.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

APPENDIX.

CATALOGUE OF STUDENTS AND PUPILS.

IN THE COLLEGE.

From Colorado.

Paul D. Hubbard.

From Connecticut.

Harry S. Lewis.

From Delaware.

Bertha Whitelock.

From Georgia.

A. H. Sessoms.

From Illinois.

Charles D. Allard.
Lulu O. Herdman.
Charles D. Seaton.
William I. Tilton.
Clarence A. Murdey.

From Indiana.

Theodore Holtz.
Oscar Shaffer.
John Walsh.

From Iowa.

William W. Beadell.
Paul Lange, jr.
David Ryan.
Augusta Kruse.
Christina Thompson.
John N. Brinkman.
Sidney E. Thomas.
William Miles Wright.
Arnold Kiene.
Frederick E. Ward.
Charles C. Ullrich.
Edwin Pyle.

From Kansas

Ellsworth Long.

From Kentucky.

Max Nathan Marcossou.
David Ware Wilson.
W. E. Dudley.
R. R. Herron.

From Maine.

Amos Barton.

From Maryland.

Alto M. Lowman.

From Michigan.

James M. Stewart.
Harry L. Stafford.

From Minnesota.

Ralph H. Drought.
Jay C. Howard.
Herbert C. Merrill.
Thomas Sheridan.

From Missouri.

Hannah Shankweiler.

From Mississippi.

Hiram T. Wagner.

From Nebraska.

Louis Andrew Divine.
George W. McDonald.

From New York.

Philip H. Brown.
Bertha Block.
Mary Martin.
Martin Milford Taylor.

From North Carolina.

Ernest Bingham.

From Ohio.

Theodore Christian Mueller.
Frank Joseph Brennan.

From Pennsylvania.

Lily Amabel Bicksler.
Harvey De Long.
George F. Grimm.
Gurney T. Hosterman.
John A. McIlvaine.
John Mutchler Kershner.
Andrew J. Sullivan.
Agatha M. Tiegel.
Oliver J. Whildin.
Laura V. Frederick.
Mary A. Gorman.
Harvey William Peter.

From Tennessee.

Albert Odom.

From Texas.

Michael Madden.
Robert M. Rives.

From Wisconsin.

William H. Cusack.
Richard Ernest Dimick.
Richard Wallace Williams.
Benjamin F. Round.

From Canada.

Alfred Harper Cowan.

IN THE PRIMARY DEPARTMENT.

Females.

Mary Jane Booth, District of Columbia.
Ida Boyer, Delaware.
Alverdia T. Cornog, Delaware.
Eliza O'Callaghan, District of Columbia.
Iva Cole, Montana.
Annie Couture, Montana.
Jennette Dailey, District of Columbia.
Mary Dailey, District of Columbia.
Sarah L. Dailey, District of Columbia.
Katharine Fogarty, District of Columbia.
Sarah Fleming, Delaware.
Lena Flesher, Montana.
Elizabeth Fagan, Delaware.
Nellie Lynch, Delaware.
Laura Mayer, Delaware.
Mabel Magee, Delaware.
Gertrude Parker, Delaware.
Millie Searles, Montana.
Lucy Smith, District of Columbia.
Gertrude E. Schofield, District of Columbia.
Mary Spurry, Delaware.
Mary D. K. Sendkind, District of Columbia.
Bertha M. Whitelock, Delaware.
Nettie Whitelock, Delaware.

Males.

Eugene Bremond, Texas.
William Brown, District of Columbia.
William H. Bartlett, District of Columbia.

— Bell, District of Columbia.
Howard Breeding, Delaware.
William H. Catlett, District of Columbia.
Frank Carroll, District of Columbia.
Harry R. Carr, District of Columbia.
Daniel A. Christie, District of Columbia.
George R. Courtney, District of Columbia.
William H. Cusack, Wisconsin.
James Collins, Iowa.
Hugh Dougherty, District of Columbia.
Maurice T. Fell, Delaware.
Albert Foskey, Delaware.
Herbert Hurd, Delaware.
Eugene C. Hannan, District of Columbia.
Frederick Hall, District of Columbia.
Herbert Jump, Delaware.
George E. Keyser, District of Columbia.
Charles H. Keyser, District of Columbia.
Mark Knighthart, Illinois.
Joseph M. Landon, District of Columbia.
William H. Lewis, District of Columbia.
William Lowell, District of Columbia.
Simon Mundheim, District of Columbia.
George W. McDonald, Nebraska.
Joseph L. Norris, Virginia.
Andrew J. Sullivan, Pennsylvania.
Richard T. Thomas, District of Columbia.
Hiram T. Wagner, Mississippi.
Jesse T. Warren, Tennessee.
Marion Wertzbomski, Delaware.
Roy J. Stewart, District of Columbia.
Joseph E. Sherman, Massachusetts.

REGULATIONS.

I. The academic year is divided into three terms, the first beginning on the Thursday before the last Thursday in September, and closing on the 24th of December; the second beginning the 2d of January and closing the last of March; the third beginning the 1st of April and closing the Wednesday before the last Wednesday in June.

II. The vacations are from the 24th of December to the 2d of January, and from the Wednesday before the last Wednesday in June to the Thursday before the last Thursday in September.

III. There are holidays at Thanksgiving, Washington's birthday, Easter, and Decoration Day.

IV. The pupils may visit their homes during the regular vacations and at the above-named holidays, but at no other time, unless for some special, urgent reason, and then only by permission of the president.

V. The bills for the maintenance and tuition of pupils supported by their friends must be paid semiannually, in advance.

VI. The charge for pay pupils is \$250 each per annum. This sum covers all expenses in the primary department except clothing, and all in the college except clothing and books.

VII. The Government of the United States defrays the expenses of those who reside in the District of Columbia, or whose parents are in the Army or Navy, provided they are unable to pay for their education. To students from the States and Territories who have not the means of defraying all the expenses of the college course the board of directors renders such assistance as circumstances seem to require, as far as the means at its disposal for this object will allow.

VIII. It is expected that the friends of the pupils will provide them with clothing and it is important that upon entering or returning to the institution they should be supplied with a sufficient amount for an entire year. All clothing should be plainly marked with the owner's name.

IX. All letters concerning pupils or applications for admission should be addressed to the president.

X. The institution is open to visitors during term time on Thursdays only, between the hours of 10 a. m. and 3 p. m. Visitors are admitted to chapel services on Sunday afternoons at a quarter past 3 o'clock.

XI. Congress has made provisions for the education, at public expense, of the indigent blind and the indigent feeble-minded of teachable age belonging to the District of Columbia.

Persons desiring to avail themselves of these provisions are required by law to make application to the president of this institution.

REPORT

OF THE

WASHINGTON HOSPITAL FOR FOUNDLINGS.

SIR: The board of directors have the honor to transmit to you the following annual report of the Washington Hospital for Foundlings for the fiscal year ending June 30, 1891.

During the year 65 children have been received; 12 have been adopted and placed in comfortable homes; 34 were in the Hospital June 30, 1891.

NUMBER OF EMPLOYÉS.

Matron, head nurse, 5 day nurses, 2 night nurses, 1 nurse for isolated ward, seamstress, dairymaid, cook, housemaid, 3 laundresses, janitor. Total, 18.

AMOUNT PAID TO EMPLOYÉS PER MONTH.

Matron	\$40.00	Janitor	\$30.00
Head nurse.....	25.00	Cook.....	15.00
Nurses (average)	10.00	Dairymaid	11.00
Laundress.....	12.00	Housemaid	8.00
Seamstress	12.00		

RECEIPTS.

United States appropriation ..	\$7,000.00	Endowment fund.....	\$241.20
Entertainment	763.10	C. B. Bailey	3.00
Dues and contributions.....	675.25		
Miss E. P. Martin (legacy)....	500.00	Total.....	9,182.55

EXPENDITURES.

Salaries and wages	\$3,233.87	Printing, stationery, and ad- vertising.....	\$125.70
Provisions, groceries, and ice..	1,493.74	Repairs and improvements....	1,364.01
Nursery food and milk.....	810.90	Insurance	40.00
Druggists' supplies.....	248.11	Miscellaneous	48.84
Fuel and gas	797.40		
Rubber goods and dry goods..	201.21	Total	8,575.34
Furniture and house furnish- ings.....	211.56		

APPROPRIATION WANTED FOR 1892-'93.

Maintenance	\$7,000.00
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Very respectfully,

LOUISE M. SMITHE, *Secretary.*

In behalf of the Board of Directors:

Z. T. SOWERS, M. D., *President.*
 Mrs. E. C. HUTCHINSON, *Vice-President.*
 Mrs. J. C. SMITHE, *Secretary.*
 W. F. MATTINGLY, *Treasurer.*
 M. M. PARKER.
 Miss HAIDEE WILLIAMSON.
 J. P. KLINGLE.
 Mrs. E. R. WALLACE.
 A. T. BRITTON.
 Mrs. J. B. KENDALL.

The Hon. SECRETARY OF THE INTERIOR.

JULY 14th, 1891.

REPORT

OF THE

FREEDMEN'S HOSPITAL.

FREEDMEN'S HOSPITAL,
Washington, D. C., August 12, 1891.

SIR: I respectfully submit the annual report of this hospital and dispensary for the fiscal year ended June 30, 1891. The whole number of patients treated in the hospital was 2,605; of this number 2,080 were colored and 525 white; the colored males numbered 990; colored females 1,090; white males 419, white females 106.

There were 307 surgical operations performed. I will mention the principal ones:

Amputation of leg, 3; amputation of foot, 1; amputation of hand, 1; amputation of fingers, 7; amputation of toes, 2; excision of cancer of breast, 2; of sarcoma of breast, 1; of fibroid tumor of uterus, 1; of polypus tumor, 1; of fatty tumors, 4; enchondroma, 1; ranula, 1; of fungoid growth of penis, 1; of syphilitic condylomata of penis, 1; of carcinoma of testicle, 1; of cystic tumor of arm, 1; of keloid tumor, 1; removal of eye, 1; paracentesis abdominis, 4; phimosis, 12; paraphimosis, 2; stricture of urethra, 4; hydrocele, 1; fistula in ano, 4; abscesses, 47; reduction of dislocation of shoulder, 11; of dislocation of jaw, 1; of dislocation of elbow, 1; of dislocation of knee, 1; of dislocation of ankle, 1; setting of fracture of inferior maxillary, 2; of fracture of humerus, 6; of fracture of clavicle, 10; of fracture of ribs, 7; of fracture of radius and ulna, 3; of fracture of femur, 4; of fracture of phalanges, 4; of tibia, 1; of compound fracture of tibia, 1; of fracture of tibia and fibula, 4; of compound fracture of tibia and fibula, 1; gunshot wounds, 22; incised wounds, 38; lacerated wounds, 28; contused wounds, 45; punctured wounds, 11.

The accompanying tables, marked A, B, C, D, E, F, G, H, and I, contain a comprehensive statement in regard to the patients; the diseases treated, causes of death, nativity, occupation, etc. In the dispensary 3,904 patients were treated.

The sanitary condition of the hospital has been good. All of the buildings have been painted inside and out. Some improvement has been made in the sewerage from several of the water closets. A complete and satisfactory system of flushing of the closets I find difficult. I shall continue improvements begun as fast as possible.

The building for the accommodation of cases with contagious diseases is nearing completion. In my estimates I shall be constrained to ask for two additional nurses to attend this class of cases.

I think an appropriation should be secured from the next Congress with which to commence the erection of new hospital buildings of brick. If it meets your approval, I will include in the estimate for the ensuing fiscal year a sum sufficient to erect a two and a half story female ward. I think it best to ask for an appropriation for one building at a time. The propriety of the Government erecting buildings upon ground it does not own has been several times discussed. There are precedents for doing so. I favor having the Government rebuild, as far as is necessary, this hospital. New ward buildings are needed. The hospital has been and will always be a great service to the whole country. Patients from every State come to it, especially the poor who can find no provision made for them at home.

In one of my reports I recommended that the Government purchase the present buildings and grounds. I would make the same recommendation now if it were not for the fact that Howard University might have placed in jeopardy the most successful department connected with it (the medical); to this department the hospital is everything; especially is this so, for the caste prejudice governing other kindred institutions of the district deny clinical facilities to a large percentage of her students. The hospital is well located; the plant is a good one; it has a history; it is a product of the late war; it is more than merely a humanitarian institution; it is educational. The young men (especially the colored ones) who have received medical and surgical training here have gone to the several Southern States where they are exerting good influence. These facts make any change of location undesirable. Possibly the Government would be willing to secure to the university, in the event of purchase, a control of all clinical advantages.

Upon the recommendation of the Commissioner of Pensions 106 ex-soldiers were admitted and treated.

Upon the recommendation of the Board of Managers of the National Soldiers' Homes 5 ex-soldiers who were awaiting transportation were cared for. The hospital received from the Board \$25.20 as compensation.

Considering that the patients admitted are from every phase of society, the order and decorum has been all that could be expected; the attendants have been faithful in the performance of their duties.

I desire to call special attention to the compensation of most of the employés; it is too meager. I do not believe the employed in any other department of the Government are so poorly paid. A number of the female nurses receive only \$10 per month; two \$11, and some of the male nurses \$12. and \$16. I shall, in justice to these people, recommend in the estimates an increase of pay.

The religious services have been conducted by the theological students of Howard University; by the Society of St. Vincent de Paul, a Catholic society; and by the members of the Protestant Episcopal Church. In addition, ministers from the city make frequent visits to the sick. Rev. Father William J. Hooman, of St. Augustine's, and Rev. Edward Marshall Mott, of Rock Creek church, are regular in attendance. Mrs. Ada Spurgeon continues her missionary labors among the sick; the management feels in debt to her for the valuable services she has rendered. The rule requiring from the patients who are able some service has been continued. The following articles have been made by the women: Bedsacks, 16; pillowcases, 140; sheets, 162; towels, 103; drawers, 12; chemises, 50; dresses, 60; aprons, 165; handkerchiefs, 6; skirts, 25; nightgowns, 60.

The men assist a little in the wards and in keeping the grass out of the sidewalks.

Before closing this report I desire to call attention to the services of Dr. E. Oliver Belt, who took charge, during the winter, of the eye and ear infirmary. Table marked I contains a list of the cases treated by him.

Dr. Belt's services were valuable; he showed skill of a high order in his operations.

Very respectfully,

C. B. PURVIS, M. D.,
Surgeon-in-Chief.

Hon. JOHN W. NOBLE,
Secretary of the Interior, Washington, D. C.

TABLE A.—Causes of death.

Disease, etc.	White.		Colored		Total.	Disease, etc.	White.		Colored.		Total.
	M.	F.	M.	F.			M.	F.	M.	F.	
Phthisis pulmonalis	7	3	51	28	89	Necrosis of pelvis				1	1
Hæmoptysis			6		6	Aneurism of aorta			1		1
Valvular disease of heart			5	5	10	Trismus nascentium			1		1
Cardiac dropsy			11	7	18	Premature birth		1	1	3	5
Angina pectoris				1	1	Hepatic dropsy			1		1
Typhoid fever	2	1	8	5	16	Pyæmia (multiple abscesses)			1		1
Malarial fever	1		1		2	Gastritis	1		1		2
Pneumonia	3		4	1	8	Puerperal mania				2	2
Pleuro-pneumonia	1		3	1	5	Puerperal peritonitis				1	1
Typhoid pneumonia			4		4	Confinement—collapse				1	1
Congestion of lungs			3		3	Confinement—pernicious anæmia		1			1
Hydrocephalus				1	1	Rupture of uterus				1	1
Senile debility	1		4	4	9	Puerperal fever				1	1
Congenital debility			2	5	7	Chronic cystitis—uræmia			1		1
Bright's disease	1		2	4	7	Fracture of skull			3		3
Chronic diarrhea				2	2	Fracture of hip—exhaustion			1		1
Dysentery				1	1	Fracture of ribs—internal hemorrhage			1		1
Apoplexy			2	1	3	Fracture of pelvis—internal hemorrhage			1		1
Softening of brain	1				1	Stricture of œsophagus				1	1
Congestion of brain	1		2		3	Cerebro spinal meningitis	1		1	1	3
Meningitis	1		3	1	5	Delirium tremens—œdema of lungs	1				1
Paralysis, general			3	3	6	Convulsions	1		2	1	4
Cancer of breast		1			1	Epilepsy				1	1
Cancer of breast and uterus				1	1	Burns of face and upper extremities				1	1
Cancer of hand	1				1	Exhaustion				1	1
Cancer of stomach		1	1		2	Hepatitis				1	1
Cancer of liver			1	1	2	Purpura hæmorrhagica				1	1
Cancer of stomach and liver			1		1	Enteritis			2		2
Cancer of penis			1		1	Erysipelas			1		1
Cancer of uterus				4	4	Marasmus				2	2
Cancer of uterus and bladder				1	1						
Osteo-sarcoma of breast				1	1						
Gangrene of scrotum—pyæmia			2		2						
Necrosis of leg and sternum			1		1						
						Total	24	8	140	98	270

TABLE B.—*Number of deaths occurring within ten days after admission, and the time each case was in the hospital prior to death.*

2 died in 3 minutes after admission.
 1 died in 5 minutes after admission.
 1 died in 30 minutes after admission.
 1 died in 45 minutes after admission.
 2 died in 1 hour after admission.
 1 died in 3 hours after admission.
 1 died in 4 hours after admission.
 1 died in 6 hours after admission.
 1 died in 7 hours after admission.
 1 died in 9 hours after admission.
 2 died in 10 hours after admission.
 1 died in 11 hours after admission.
 2 died in 16 hours after admission.
 1 died in 18 hours after admission.
 3 died in 20 hours after admission.
 5 died in 24 hours after admission.
 1 died in 26 hours after admission.
 1 died in 28 hours after admission.

2 died in 36 hours after admission.
 8 died in 2 days after admission.
 5 died in 2½ days after admission.
 7 died in 3 days after admission.
 1 died in 3½ days after admission.
 6 died in 4 days after admission.
 2 died in 4½ days after admission.
 6 died in 5 days after admission.
 1 died in 5½ days after admission.
 6 died in 6 days after admission.
 1 died in 6½ days after admission.
 5 died in 7 days after admission.
 1 died in 7½ days after admission.
 6 died in 8 days after admission.
 4 died in 9 days after admission.
 4 died in 10 days after admission.

Total, 95; over one-third of all the deaths occurring during the year.

TABLE C.—*The diseases and conditions for which patients were admitted to hospital and treated in dispensary.*

Diseases, etc.	Treated in hos- pital.				Treated in dispensary.	Diseases, etc.	Treated in hos- pital.				Treated in dispensary.
	White.		Colored.				White.		Colored.		
	Males.	Females.	Males.	Females.			Males.	Females.	Males.	Females.	
Fracture of skull			1		2	Caries of metacarpal bones			1	1	
Compound fracture of skull			2			Caries of metatarsal bones	1				
Fracture of inferior maxil- lary			2			Necrosis of ribs				1	
Fracture of clavicle	2		2		6	Necrosis of phalanges			1	1	
Fracture of humerus			1	1	4	Necrosis of pelvis				1	
Fracture of radius and ulna	1		1		1	Necrosis of femur			1		
Fracture of ribs	1		5		1	Necrosis of knee joint				2	
Fracture of phalanges					4	Necrosis of tibia			1		
Fracture of pelvis			1			Necrosis of ankle joint			1		
Fracture of femur	1		5			Necrosis					5
Fracture of tibia			1			Amputation of fingers	2		5		
Compound fracture of tibia			1			Amputation of foot			1		
Fracture of tibia and fibula	1		3			Gangrene of leg			1		
Compound fracture of tibia and fibula			1			Gangrene of foot	1		2		
Fracture of ankle joint	1		2			Ulcers	2	1	1		
Compound fracture of ankle joint	1		1			Chronic ulcers	8	2	11	8	30
Fracture of metatarsal bones			1			Varicose veins	1				11
Dislocation of jaw					1	Abscesses	6		10	7	24
Dislocation of shoulder	2		3	1	5	Burns	1		4	1	9
Dislocation of elbow					5	Pernio					3
Dislocation of knee	1					Bursae	1				
Dislocation of ankle	1					Epulis					1
Gun-shot wounds	1		17		4	Keloid tumors			1		5
Incised wounds	1		11		26	Fatty tumors				1	
Lacerated wounds	3		6	2	17	Osteo sarcoma of breast				1	
Contused wounds	2		10		33	Sarcoma of hip and thigh			1		
Punctured wounds			8	1	2	Cancer of arm	1				
Contusions	9	1	23	5	55	Cancer of hand	1				
Sprains	4		3			Cancer of breast				6	
Floating cartilage in knee- joint			1			Cancer of breast and uterus				1	
Synovitis			2	2	11	Cancer of uterus		1		4	
Periostitis			1		5	Cancer of uterus and blad- der				1	
Anchylosis	1			1	5	Cancer of stomach		2	2		
Paronychia			2			Cancer of stomach and liver			1		
Ingrowing toe nail		1			2	Cancer of liver			1	1	
Furunculus			1			Cancer of penis			1		
Carbuncle	1		1	3		Cancer of testicle	1				
Frost bite			1	1	4	Carcinoma				1	9
Dog bite	1				7	Foreign body in throat					1
Man bite			1			Foreign body in foot					1
Hog bite			1			Hernia, inguinal	2		5		6
Caries of sternum			1			Hernia, strangulated in- guinal			2		
Caries of vertebræ				1		Aneurism of thoracic aorta			1		
						Aneurism					1
						Epistaxis	1				5

TABLE C.—The diseases and conditions for which patients were admitted to hospital and treated in dispensary—Continued.

Diseases, etc.	Treated in hos- pital.				Treated in dispensary.	Diseases, etc.	Treated in hos- pital.				Treated in dispensary.
	White.		Colored.				White.		Colored.		
	Males.	Females.	Males.	Females.			Males.	Females.	Males.	Females.	
Syphilis	5	3	28	42	126	Remittent fever				2	5
Syphilis, secondary	2	3	13	13	61	Typhoid fever	3	1	24	15	12
Syphilis, tertiary	1				3	Typho-malarial fever	1		1	4	
Syphilitic condylomata			5	2		Malarial fever	11	4	27	20	80
Phagedenic ulcer			1			Erysipelas	3		12	5	9
Gonorrhœa	8		19	1	121	Erysipelas, traumatic	1				
Bubo	2		27	11	68	Rubeola	2		11	20	
Epididymitis					3	Asthénia					55
Orchitis	1		15		11	Anæmia		1			17
Phimosis	1		16		10	Leucocythæmia					1
Paraphimosis	1		3		7	Pyæmia			3		
Stricture of urethra	1		8		5	Septicæmia				1	
Fistula of urethra			1			Purpura hæmorrhagica				1	
Hypertrophy of penis			1			Acute bronchitis	18	1	16	10	296
Hypertrophy of scrotum			1			Chronic bronchitis	2		3		146
Gangrene of scrotum			1			Capillary bronchitis					145
Gangrene of penis and scrotum			2			Influenza			2	2	5
Hypertrophy of prostate			1			La Grippe	7	3	26	21	95
Prostatitis					1	Nasal catarrh			1		9
Edema of scrotum			1		1	Nasal polypus				1	3
Nephritis			2		13	Tonsillitis	3	2	5	5	119
Dysuria	2	1	3		1	Edema of uvula				1	
Hæmaturia			1	1	3	Ulceration of throat	1			2	
Incontinence				1	12	Stricture of œsophagus				1	
Retention	1		5		4	Asthma	2	1	4	6	38
Onanism		1				Pertussis			1	3	4
Hydrocele					3	Pleurisy		1	2	5	100
Cystitis		1	10	9	48	Phthisis pulmonalis	16	10	81	53	92
Fistula in ano		1	7		2	Hæmoptysis	1		7		23
Ulceration of rectum				1		Pneumonia	3		17	6	5
Recto-vaginal fistula				1		Edema of lungs	1				
Hæmorrhoids	6		1	5	11	Congestion of lungs			3	1	
Prolapsus ani			1	1		Pleuro-pneumonia	1		4	3	
Bright's disease	2		11	6		Typhoid pneumonia			8		
Ascites			1	1		Gangrene of lungs			1		1
General dropsy			3	1		Acute laryngitis				4	33
Hepatic dropsy			1			Tuberculosis	1		2	2	
Acute rheumatism	16	6	28	31	148	Valvular disease of heart	3		21	10	24
Chronic rheumatism	13	3	17	5	85	Cardiac dropsy			10	7	1
Lumbago	4	1	5		49	Hypertrophy of heart	1		5		
Sciatica				1	2	Angina pectoris				1	
Neuralgia	1			6	43	Functional disorder of heart			1		
Odontalgia					209	Endocarditis				1	
Torticollis			1		5	Stomatitis					5
Alcoholism	57	6	5	3	34	Pharyngitis	1			4	25
Delirium tremens	7					Gastralgia	1				9
Amausis		1	1			Gastritis	1		1	2	7
Cataract	1		2	1	1	Dyspepsia	2		1	3	116
Conjunctivitis			2	1	20	Constipation			2	1	132
Ophthalmia, gonorrhœal			1			Enteritis		1	2	2	15
Iritis	1		3	1	7	Colitis					17
Iritis, syphilitic	2		1	4		Gastro-enteritis			1	3	5
Glaucoma				1		Dysentery	1		4	2	8
Ulcer of cornea			1			Marasmus				1	
Opacity of cornea		1				Cholera morbus			1	1	8
Pterygium					3	Enteralgia			3	8	1
Tinea capitis					3	Myalgia	2	1	1	3	69
Acne					3	Acute diarrhea	3		10	6	49
Pruritus				1	9	Chronic diarrhea	3	1	2	1	
Urticaria	1					Hepatitis			2	1	
Lupus				4	3	Icterus			1		3
Elephantiasis			1			Peritonitis				4	5
Adenitis					1	Hysteria				8	23
Enlarged glands			1	1	3	Insomnia					6
Gout					2	Cephalalgia	2		3	3	125
Scrofula		1	3	2	48	Hemiparesis				1	
Gonorrhœa	2	1	1	1		Neurasthenia	1	1			
Intermittent fever, quotid- ian	3		2	1	12	Opium habit		2			
Intermittent fever, tertian	4		3	4	24	Dementia			1	1	
						Insanity			5		1

TABLE C.—*The diseases and conditions for which patients were admitted to hospital and treated in dispensary—Continued.*

Diseases, etc.	Treated in hos- pital.				Treated in dispensary.	Diseases, etc.	Treated in hos- pital.				Treated in dispensary.
	White.		Colored.				White.		Colored.		
	Males.	Females.	Males.	Females.			Males.	Females.	Males.	Females.	
Acute mania.....	1			1		Endocervicitis.....				3	
Hypochondriasis.....				1		Edema of labia.....				3	
Convulsions.....	1		4	2	13	Hypertrophy of labia.....		1			
Vertigo.....	1					Abscess of labia.....				1	
Epilepsy.....	2		8	7	6	Fibroid tumor of uterus.....				4	
Hystero-epilepsy.....			1	3		Prolapsus uteri.....				3	4
Spinal irritation.....		1				Hæmorrhage from uterus.....				1	
Paralysis, general.....	5		9	6	4	Congestion of uterus.....				1	
Hemiplegia.....	3		1	1		Rupture of uterus.....				1	
Paraplegia.....			5			Ulceration of cervix uteri.....				1	
Congestion of brain.....	1		3	1	2	Ovaritis.....				1	1
Concussion of brain.....			3			Vaginitis.....					1
Softening of brain.....	1		2	1	2	Pelvic cellulitis.....				4	
Acute meningitis.....	1		2			Mammitis.....				2	1
Cerebro-spinal meningitis.....	1		2	2		Amenorrhœa.....				1	10
Apoplexy.....			2	1		Dysmenorrhœa.....				3	16
Hydrocephalus.....					2	Menorrhagia.....				3	13
Sunstroke.....			2			Metrorrhagia.....				1	
Poison, poison oak.....	1					Menopausis.....					11
Poison, ammonia.....	1					Leucorrhœa.....				3	26
Pregnancy.....					62	Infancy.....	1	3	93	98	
Premature birth.....		1	1	3		Hæmorrhage from umbilicus.....			2		
Miscarriage.....		2		26		Congenital debility.....			4	4	
Abortion.....				5		Cholera infantum.....			1		6
Threatened abortion.....				2		Trismus nascentium.....			1		
Confinement.....		1		12		Dentition.....					3
Puerperal mania.....				4		General debility.....		1			
Puerperal fever.....				2		Senile debility.....	17	1	15	10	
Puerperal peritonitis.....				1		Senile dementia.....	1			1	
Cellulitis.....					7	Convalescent.....	30		3	1	
Metritis.....		2		13	22	Teeth extracted.....					140
Endometritis.....				5	2						

TABLE D.—*Occupation of patients.*

Occupation.	No.	Occupation.	No.	Occupation.	No.
Servant.....	607	Watchman.....	3	Policeman.....	1
Laborer.....	566	Blacksmith.....	3	Distiller.....	1
Ex-soldier.....	106	Baker.....	3	Carriage-maker.....	1
Driver.....	34	Harness-maker.....	2	Boatman.....	1
Waiter.....	29	Peddler.....	2	Jeweler.....	1
Ex-U. S. Navy.....	20	Paver.....	2	Bootblack.....	1
Hostler.....	18	Dressmaker.....	2	Janitor.....	1
Cook.....	17	Paper-hanger.....	2	Glazier.....	1
Clerk.....	14	Plasterer.....	2	Hotel-manager.....	1
Painter.....	14	Bricklayer.....	2	Steward.....	1
Laundress.....	13	Elevator boy.....	2	Cabinet-maker.....	1
Carpenter.....	10	Boatman.....	2	Machinist.....	1
Nurse.....	10	Teacher.....	1	Peanut-vender.....	1
Barber.....	9	Sexton.....	1	Fireman.....	1
Farmer.....	9	Storekeeper.....	1	Cattleman.....	1
Chambermaid.....	8	Scissors-grinder.....	1	Horse-dealer.....	1
Porter.....	7	Iron-worker.....	1	Bookmaker.....	1
Housekeeper.....	7	Agent.....	1	Law student.....	1
Sailor.....	6	Herder.....	1	Ship-carpenter.....	1
Hod-carrier.....	5	Butcher.....	1	Boiler-maker.....	1
Gardener.....	4	Undertaker.....	1	Messenger.....	1
Tailor.....	4	Mattress-maker.....	1	Weaver.....	1
Bricklayer.....	4	Stonemason.....	1	Wheelwright.....	1
Plumber.....	4	Chemist.....	1	Printer.....	1
Engineer.....	3	Milkman.....	1	Journalist.....	1
Physician.....	3	Tinner.....	1	Brickmaker.....	1
Coachman.....	3	Umbrella-maker.....	1	No occupation.....	70
Seamstress.....	3	Sign-painter.....	1	Unknown.....	482
Huckster.....	3	Clothier.....	1		

TABLE E.—*Nativity of patients.*

Where born.	No.	Where born.	No.	Where born.	No.
Virginia.....	817	South Carolina.....	6	West Indies.....	2
District of Columbia.....	592	Delaware.....	6	Vermont.....	1
Maryland.....	440	Canada.....	6	Wisconsin.....	1
Ireland.....	77	Alabama.....	5	Minnesota.....	1
Pennsylvania.....	55	Connecticut.....	5	Missouri.....	1
North Carolina.....	52	West Virginia.....	4	Norway.....	1
New York.....	49	Texas.....	4	Portugal.....	1
Germany.....	39	Scotland.....	4	Poland.....	1
Massachusetts.....	18	Michigan.....	3	New Brunswick.....	1
England.....	15	Indiana.....	3	Australia.....	1
Georgia.....	11	Louisiana.....	3	Spain.....	1
Ohio.....	11	Illinois.....	3	Belgium.....	1
Kentucky.....	9	Arabia.....	3	South America.....	1
New Jersey.....	8	Tennessee.....	2	Russia.....	1
Switzerland.....	8	Maine.....	2	Holland.....	1
Mississippi.....	7	Wales.....	2	Unknown.....	70
France.....	7	Austria.....	2		
Rhode Island.....	7	Italy.....	2		

TABLE F.—*Showing the number admitted each month.*

Month.	No.	Month.	No.
1890.		1891.	
July.....	216	January.....	169
August.....	201	February.....	168
September.....	243	March.....	187
October.....	180	April.....	218
November.....	182	May.....	201
December.....	210	June.....	198
		Total.....	2,373

TABLE G.—*Showing the number admitted each year for the past 17 years.*

During year ended June—	No.	During year ended June—	No.	During year ended June—	No.
1875.....	190	1881.....	892	1887.....	2,017
1876.....	319	1882.....	1,102	1888.....	1,997
1877.....	500	1883.....	1,373	1889.....	2,074
1878.....	519	1884.....	1,509	1890.....	2,392
1879.....	642	1885.....	1,794	1891.....	2,373
1880.....	819	1886.....	1,923		

TABLE H.

	White.			Colored.			Grand total.
	Males.	Females.	Total.	Males.	Females.	Total.	
Remaining June 30, 1890.....	24	10	34	89	109	198	232
Admitted.....	392	92	484	802	879	1,681	2,165
Born.....	3	4	7	99	102	201	208
Total.....	395	96	491	901	981	1,882	2,373
Total in hospital.....	419	106	525	990	1,090	2,080	2,605
Discharged.....	371	90	461	759	884	1,643	2,104
Died.....	24	8	32	140	98	238	270
Stillborn.....	1		1	12	10	22	23
Total.....	369	98	494	911	992	1903	2,397
Remaining June 30, 1891.....	23	8	31	79	98	177	208

TABLE I.—*Diseases of the eye and ear.*

DISEASES OF THE EYE.

Blepharitis	4	Œdema of conjunctiva	1	Choroidoiritis.....	1
Œdema of lid	4	Keratitis, interstitial.....	6	Glaucoma.....	2
Wound of lid.....	1	Keratitis phlyctenular.....	2	Choroidal atrophy.....	2
Burn of lid.....	1	Ulcer of cornea.....	2	Cyclitis.....	1
Sty.....	1	Wound of cornea.....	3	Retinitis.....	1
Tarsal cyst.....	6	Burn of cornea.....	1	Amblyopia (without appreciable cause).....	2
Lupus of lid.....	1	Ant. staphyloma.....	3	Atrophy of the optic nerve.....	7
Ectropion.....	2	Opacity of the cornea.....	10	Pus in anterior chamber....	2
Strabismus internus.....	2	Foreign body in cornea.....	1	Muscae.....	1
Strabismus externus.....	1	Wound of sclerotic.....	1	Cataract, senile.....	12
Nystagmus.....	1	Arcus senilis.....	1	Cataract, traumatic.....	1
Lagophthalmus.....	1	Iritis.....	15	Cataract, capsular.....	3
Epiphora.....	3	Irido-keratitis.....	8	Cataract, inflammatory.....	2
Mucocele.....	1	Hernia of iris.....	1	Atrophy of eyeball, injury..	3
Conjunctivitis, catarrhal....	33	Synechia, anterior.....	2	Atrophy of eyeball, disease..	2
Conjunctivitis, phlyctenular	5	Synechia, posterior.....	3	Panophthalmitis.....	1
Conjunctivitis, granular.....	2	Mydriasis.....	1	Myopia.....	
Conjunctivitis, purulent....	3	Myosis.....	1	Hyperopia.....	5
Ecchymosis of conjunctiva..	4	Wound of iris.....	2	Presbyopia.....	3
Burns of conjunctiva.....	1	Gummata of iris.....	2	Astigmatism.....	7
Wound of conjunctiva.....	3	Choroiditis.....	1		
Pterygium.....	6				

DISEASES OF THE EAR.

Eczema of external meatus..	1	Abscess of meatus externus..	2	Acute aural catarrh.....	2
Foreign body in external meatus	1	Polypus in meatus externus..	1	Keloid of pinna.....	2
Ceruminous deposit.....	5	Otitis media with perforation	2		
		Chronic aural catarrh.....	2		

OPERATIONS.

Extraction of cataract with iridectomy	3	Operation for ectropion.....	1	Removal of polypus from ear	1
Iridectomy for glaucoma...	1	Removal of tarsal tumor....	3	Extracting foreign body from ear	1
Iridectomy for leucoma....	1	Abscess of lid.....	1	Opening abscess of meatus..	1
Paracentesis of cornea.....	1	Removal of shot from lid...	1	Removal of ceruminous deposit.....	5
Setons introduced in temples for keratitis	2	Removal of pterygium.....	4		
Removal of foreign body from cornea.....	1	Eneucleation of eyeball....	2	Total	35
		Muscles divided for external squint.....	1		
		Slitting the canaliculum ...	5		

REPORT

OF THE

BOARD OF VISITORS OF THE GOVERNMENT HOSPITAL FOR THE INSANE.

OFFICERS OF THE HOSPITAL, JUNE 30, 1891.

VISITORS:

JOSEPH M. TONER, M. D.,
President of the Board.
JAMES C. WELLING, LL. D.
Mrs. A. M. GANGEWER.
Mrs. AMELIA J. ROWLAND.
Hon. WILLIAM A. MAURY.

JOHN MOORE, M. D., U. S. A.
F. M. GUNNELL, M. D., U. S. N.
Rev. BYRON SUNDERLAND, D. D.
WALTER WYMAN, M. D.,
Supervising Surgeon-General,
M. H. S.

EXECUTIVE COMMITTEE OF THE BOARD:

Messrs. TONER, GUNNELL, and MOORE.

CHAPLAINS:

Rev. JOHN CHESTER, D. D.
Rev. A. FLORIDUS STEELE.
Rev. WILLIAM E. PARSON, D. D.

Rev. THOMAS B. HUGHES.
Rev. E. HERBERT RICHARDSON.

MEDICAL OFFICERS:

W. W. GODDING, M. D., *Superintendent and ex officio Secretary of the Board of Visitors.*
A. H. WITMER, M. D., *First Assistant Physician, in charge of Female Department.*
M. J. STACK, M. D., *Second Assistant Physician, in charge of Male Department.*
A. C. PATTERSON, M. D., *Third Assistant Physician.*
J. C. SIMPSON, M. D., *Fourth Assistant Physician.*
C. H. LATIMER, M. D., *Fifth Assistant Physician.*
C. A. DREW, M. D., *Sixth Assistant Physician.*
I. W. BLACKBURN, M. D., *Special Pathologist.*
J. A. BARRY, M. D., *Night Medical Supervisor.*

REPORT

OF

THE BOARD OF VISITORS.

GOVERNMENT HOSPITAL FOR THE INSANE,
Washington, D. C., August 28, 1891.

SIR: In accordance with the statute requirements the Board of Visitors respectfully submit their thirty-sixth annual report.

The following are the tabulated statistics of the fiscal year ending June 30, 1891:

SUMMARY.

	Males.	Females.	Total.
Remaining June 30, 1890.....	1, 155	350	1, 505
Admitted during the year ending June 30, 1891	271	81	352
Whole number under treatment.....	1, 426	431	1, 857
DISCHARGED.			
Recovered.....	36	30	66
Improved	38	15	53
Unimproved.....	1	1	2
Died.....	98	30	128
Total discharged and died.....	173	76	249
Remaining June 30, 1891	1, 253	355	1, 608

Admissions and discharges.

		Males.		Females.		Total.	
REMAINING JUNE 30, 1890.							
Army.....	{ White ...	679	689	3	3	692	
	{ Colored..	10					
Navy.....	{ White ...	67	69			69	
	{ Colored ..	2					
Marine Hospital Service.....	{ White ...	16	18			18	
	{ Colored..	2					
Civil life.....	{ White ...	266	379	240	347	726	1, 505
	{ Colored..	113		107			
			1, 155		350		

Admissions and discharges—Continued.

		Males.		Females.		Total.	
ADMITTED DURING THE YEAR 1890-'91.							
Army.....	{ White ... Colored..	161 4	165				165
Navy.....	{ White ... Colored..	18 1					
			19				19
Marine Hospital Service.....	{ White ... Colored..	3 4	7				7
Civil life.....	{ White ... Colored..	50 30					
		80	271		81	81	161
352							
UNDER TREATMENT DURING THE YEAR.							
Army.....	{ White ... Colored..	840 14	854		3 -----	3	857
Navy.....	{ White ... Colored..	85 3					
			88				88
Marine Hospital Service.....	{ White ... Colored..	19 6	25				25
Civil life.....	{ White ... Colored..	316 143					
		459	1,426		428	431	887
1,857							
DISCHARGED DURING THE YEAR—RECOVERED.							
Army.....	{ White ... Colored..	22 -----	22				22
Navy.....	{ White ... Colored..	5 -----					
			5				5
Marine Hospital Service.....	{ White ... Colored..	----- 1	1				1
Civil life.....	{ White ... Colored..	4 4					
		8	36		30	30	38
66							
DISCHARGED DURING THE YEAR—IMPROVED.							
Army.....	{ White ... Colored..	29 -----	29				29
Navy.....	{ White ... Colored..	4 -----					
			4				4
Marine Hospital Service.....	{ White ... Colored..	----- -----					
Civil life.....	{ White ... Colored..	3 2					
		5	38		15	15	20
53							
DISCHARGED DURING THE YEAR—UNIMPROVED.							
Army.....	{ White ... Colored..	----- -----					
Navy.....	{ White ... Colored..	----- -----					
Marine Hospital Service.....	{ White ... Colored..	----- -----					
Civil life.....	{ White ... Colored..	1 -----					
		1	1		1		2

Cause of death.

Apoplexy, hemorrhagic	5	General paralysis, with pyelo-nephritis	1
Abcess of brain	1	Hemorrhage from rupture of mesenteric artery	1
Acute decubitus	1	Hydronephrosis	1
Asphyxia, from food in larynx	1	Meningitis, acute	1
Asphyxia, accidental	1	Œdema of brain	3
Bright's disease, chronic	1	Organic disease of brain	7
Bright's disease, chronic, with uræmic convulsions	1	Organic disease of brain, with cerebral embolism	1
Bronchitis	1	Organic disease of brain, with convulsions	1
Bronchitis, senile	2	Organic disease of brain, with exhaustion	2
Carcinoma	6	Organic disease of brain, with pneumonia	1
Carbuncle	1	Paralysis, bulbar	1
Cardiac thrombosis	1	Pericarditis	1
Cardiac valvular disease	5	Peritonitis	1
Cholesteræmia	1	Phthisis	21
Diarrhœa	5	Pleuritis	1
Dysentery	1	Pneumonia	2
Epileptic convulsions	7	Pulmonary congestion	3
Epileptiform convulsions	1	Pulmonary gangrene	3
Exhaustion	3	Pyelo-nephritis	2
Exhaustion from acute mania	2	Senectus, with exhaustion	4
Exhaustion from chronic mania	2	Senectus, with œdema of brain	1
General paralysis	1	Septicæmia, from abcess of œsophagus	1
General paralysis, with apoplexy, serous	1	Suicide (hanging)	1
General paralysis, with bulbar paralysis	3		
General paralysis, with diarrhœa	2		
General paralysis, with epileptiform convulsions	7		
General paralysis, with exhaustion	3		
General paralysis, with heart clot	1		
		Total	128

Duration of mental disease on admission of those who recovered.

Under 10 days	2	Between 6 and 8 months	10
Between 10 and 20 days	3	Between 1 and 2 years	5
Between 20 and 30 days	2	Between 4 and 5 years	2
Between 1 and 2 months	25	Over 25 years	1
Between 2 and 3 months	10		
Between 3 and 4 months	4		
Between 4 and 5 months	2		
		Total	66

Duration of mental disease of those who died.

One month	3	Thirteen years	5
Three months	4	Fourteen years	2
Four months	1	Fifteen years	3
Six months	1	Sixteen years	1
Nine months	2	Seventeen years	3
One year	10	Eighteen years	7
Two years	20	Twenty-one years	2
Three years	16	Twenty-two years	1
Four years	7	Twenty-three years	1
Five years	5	Twenty-four years	2
Six years	6	Twenty-six years	5
Seven years	4	Twenty-nine years	2
Eight years	2	Thirty-two years	2
Nine years	2	Forty-three years	1
Ten years	3	Forty-seven years	1
Eleven years	1		
Twelve years	3		
		Total	128

Duration of disease on admission.

		Males.		Females.		Totals.	
LESS THAN SIX MONTHS.							
Army	{ White... Colored..	45 1	46			46	
Navy	{ White... Colored..	7 1	8			8	
Marine Hospital Service.....	{ White... Colored..	2 2	4			4	
Civil life.....	{ White... Colored..	18 7	25	18 18	36	61	119
			83		36		
LESS THAN ONE YEAR.							
Army.....	{ White... Colored..	18 0	18			18	
Navy	{ White... Colored..	2 0	2			2	
Marine Hospital Service.....	{ White... Colored..	1 0	1			1	
Civil life.....	{ White... Colored..	9 2	11	7 2	9	20	41
			32		9		
ONE TO TWO YEARS.							
Army.....	{ White... Colored..	41 3	44			44	
Navy	{ White... Colored..	6 0	6			6	
Marine Hospital Service.....	{ White... Colored..	1 0	1			1	
Civil life.....	{ White... Colored..	8 11	19	14 5	19	38	89
			70		19		
OVER TWO YEARS.							
Army.....	{ White... Colored..	30 0	30			30	
Navy	{ White... Colored..	2 0	2			2	
Marine Hospital Service.....	{ White... Colored..	0 0	0			0	
Civil life	{ White... Colored..	8 4	12	1 2	3	15	47
			44		3		
OVER THREE YEARS.							
Army.....	{ White... Colored..	7 0	7			7	
Navy	{ White... Colored..	0 0	0			0	
Marine Hospital Service.....	{ White... Colored..	0 0	0			0	
Civil life.....	{ White... Colored..	2 2	4	2 1	3	7	14
			11		3		

Duration of disease on admission—Continued.

			Males.		Females.		Totals.	
OVER FOUR YEARS.								
Army.....	{ White ...	4						
	{ Colored ..							
			4				4	
Navy	{ White ...							
	{ Colored ..							
Marine Hospital Service.....	{ White ...							
	{ Colored ..							
Civil life.....	{ White ...	1					1	
	{ Colored ..		1					
				5				5
FIVE TO TEN YEARS.								
Army.....	{ White ...	11						
	{ Colored ..							
			11				11	
Navy	{ White ...	1						
	{ Colored ..							
			1				1	
Marine Hospital Service.....	{ White ...							
	{ Colored ..	1					1	
			1					
Civil life.....	{ White ...				2			
	{ Colored ..	2			2			
			2			4	6	
				15				19
TEN TO TWENTY YEARS.								
Army.....	{ White ...	5						
	{ Colored ..							
			5				5	
Navy	{ White ...							
	{ Colored ..							
Marine Hospital Service.....	{ White ...							
	{ Colored ..							
Civil life.....	{ White ...	3						
	{ Colored ..	1			5			
			4				9	
				9				14
OVER TWENTY YEARS.								
Army.....	{ White ...							
	{ Colored ..							
Navy	{ White ...							
	{ Colored ..							
Marine Hospital Service.....	{ White ...							
	{ Colored ..							
Civil life.....	{ White ...	1						
	{ Colored ..	1				2		
			2				2	4
				2				4

Table showing the nativity as far as could be ascertained of the 8,208 cases treated.

Native born.	Number.	Foreign born.	Number.
District of Columbia.....	979	Ireland.....	1,533
New York.....	572	Germany.....	1,026
Maryland.....	624	England.....	191
Virginia.....	717	France.....	65
Pennsylvania.....	435	Canada.....	67
Ohio.....	257	Scotland.....	69
Massachusetts.....	190	Switzerland.....	33
Maine.....	87	Italy.....	31
Illinois.....	79	Denmark.....	24
Connecticut.....	63	Norway.....	19
New Hampshire.....	66	Sweden.....	32
Indiana.....	75	Poland.....	14
Kentucky.....	64	Prussia.....	2
Michigan.....	46	Panama.....	1
New Jersey.....	77	Russia.....	14
Tennessee.....	37	Austria.....	16
Wisconsin.....	29	Nova Scotia.....	10
Vermont.....	37	Spain.....	6
Missouri.....	42	Holland.....	10
Rhode Island.....	27	Wales.....	7
Delaware.....	16	Portugal.....	4
North Carolina.....	30	Hungary.....	5
Alabama.....	17	Mexico.....	5
South Carolina.....	17	Saxony.....	6
Iowa.....	7	Malta.....	3
Georgia.....	21	Belgium.....	4
Mississippi.....	20	Buenos Ayres.....	1
Louisiana.....	10	Costa Rica.....	1
West Virginia.....	18	Bavaria.....	6
Kansas.....	3	Sicily.....	1
Florida.....	4	British Columbia.....	1
Texas.....	10	British Possessions.....	1
California.....	6	East Indies (British).....	6
Indian Territory.....	5	West Indies (British).....	6
Colorado.....	1	New Brunswick.....	2
Arkansas.....	4	Cuba.....	2
Montana.....	1	China.....	1
Oregon.....	1	Sandwich Islands.....	1
Minnesota.....	2	Coast of Africa.....	1
Total.....	4,696	Cyprus.....	1
		Turkey.....	1
		Greece.....	1
		New Granada.....	1
		West Indies (Hayti).....	1
		Total.....	3,232

Native born.....	4,696
Foreign born.....	3,232
Unknown.....	280
Total.....	8,208

Form of disease in those admitted.

Disease.	Total last year.	Admitted during year.	Total.	Disease.	Total last year.	Admitted during year.	Total.
Mania, acute.....	2,411	56	2,467	Dipsomania.....	438	1	439
Mania, chronic.....	1,302	14	1,316	Kleptomania.....	4		4
Melancholia.....	1,276	154	1,430	Nymphomania.....	4		4
Dementia.....	1,847	75	1,922	Imbecility.....	108	7	115
Dementia, senile.....	220	21	241	Opium eaters.....	19		19
Paresis.....	210	23	233	Idiocy.....	2	1	3
Typhomania (Bell's disease). Diffuse suppurative meningitis.	2 1		2 1	Not insane.....	12		12
				Total.....	7,856	352	8,208

Tabular statement of the time of life at which the 8,208 cases treated since the opening of the institution became insane.

Age.	Previous to 1890.	1891.	Total.
Under 10 years.....	181	8	189
Between 10 and 15 years.....	81	4	85
Between 15 and 20 years.....	427	6	433
Between 20 and 25 years.....	1,231	32	1,263
Between 25 and 30 years.....	1,384	40	1,424
Between 30 and 35 years.....	1,184	32	1,216
Between 35 and 40 years.....	897	25	922
Between 40 and 45 years.....	666	27	693
Between 45 and 50 years.....	519	38	557
Between 50 and 60 years.....	601	75	676
Between 60 and 70 years.....	356	48	398
Between 70 and 80 years.....	133	12	145
Between 80 and 90 years.....	18	5	23
Over 90 years.....	2	.....	2
Unknown.....	170	.....	170
Not insane.....	12	.....	12
Total.....	7,856	352	8,208

Private patients.

	Male.	Female.	Total.
There were at the beginning of the year.....	4	3	7
Admitted during the year.....	.....	.....	.....
Whole number under treatment.....	4	3	7
Discharged during the year.....	.....	.....	.....
Remaining at end of year.....	4	3	7

Summary of total admissions.

	Male.	Female.	Total.
Percentages of cases recovered.....	37.64	26.92	35.51
Percentages of cases improved.....	14.67	18.49	15.44
Percentages of cases unimproved.....	2.12	4.46	2.57
Percentages of cases died.....	26.50	28.44	26.89
Percentages of cases remaining.....	19.07	21.69	19.59
	100.00	100.00	100.00

Table showing the history of the annual admissions since the opening of the hospital, with the discharges and deaths, and the number for each year remaining June 30, 1891.

Years.	Admitted.			Of each year's discharged and died in 1891.												Total discharged and died of each year's admissions.			Remaining of each year's admissions June 30, 1891.		
	New cases.		Relapsed cases.	Recovered.			Improved.			Unimproved.			Died.			Total.	Male.	Fem.	Total.		
	Male.	Fem.		Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.						
	Male.	Fem.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	
1855.....	26	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1855-'56..	36	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1856-'57..	24	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1857-'58..	27	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1858-'59..	45	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1859-'60..	67	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1860-'61..	60	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1861-'62..	172	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1862-'63..	323	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1863-'64..	462	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1864-'65..	452	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1865-'66..	182	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1866-'67..	71	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1867-'68..	105	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1868-'69..	114	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1869-'70..	130	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1870-'71..	147	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1871-'72..	120	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1872-'73..	130	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1873-'74..	165	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1874-'75..	155	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1875-'76..	136	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1876-'77..	119	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1877-'78..	109	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1878-'79..	138	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1879-'80..	159	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1880-'81..	135	51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1881-'82..	151	59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1882-'83..	169	51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1883-'84..	245	54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1884-'85..	203	72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1885-'86..	205	57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1886-'87..	184	52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1887-'88..	230	62	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1888-'89..	190	58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1889-'90..	258	63	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
1890-'91..	256	76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Total...	5,900	1,365	273	8,208	670	273	8,208	36	30	66	38	15	53	98	30	128	2,473	441	2,914	1,608	

Table showing admissions, discharges, and deaths, with the mean annual mortality and proportion of recoveries, per cent. of the discharges, including deaths, for each year since the opening of the hospital.

Years.	Admitted.			Discharged.												Remaining June 30 in each year.			Daily average.			Percentage of recoveries on discharges.			Percentage of deaths on average numbers.			Percentage of deaths on total number under treatment.					
				Recovered.			Improved.			Unimproved.			Died.																				
	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.	Male.	Fem.	Total.			
1855.....	26	37	63	3	3	6	1	1	2	1	1	2	5	3	8	26	34	60	19.35	20.65	40.00	100.00	190.00	12.13	7.09	10.10	8.06	6.66	7.48				
1855-'56.....	36	11	47	2	2	4	3	1	4	7	3	10	8	8	16	54	39	93	41.20	37.98	70.18	33.33	35.71	12.13	7.09	10.10	8.06	6.66	7.48				
1856-'57.....	25	27	52	3	4	7	1	1	2	2	3	5	7	6	13	59	50	109	54.55	42.80	97.35	25.00	16.66	14.66	18.69	16.43	10.13	12.12	11.03				
1857-'58.....	29	14	43	13	5	18	1	1	2	2	3	5	6	4	10	65	52	117	57.70	50.31	108.01	44.66	51.42	12.13	11.92	12.03	7.95	9.37	8.55				
1858-'59.....	47	18	65	16	5	21	1	4	5	5	3	8	6	4	10	84	54	138	72.93	56.24	129.17	31.25	47.73	8.22	7.11	7.74	5.96	5.71	5.49				
1859-'60.....	68	24	92	26	7	33	4	3	7	3	2	5	13	5	18	106	61	167	100.68	59.00	159.68	41.17	52.38	12.91	8.47	11.27	8.55	6.41	7.25				
1860-'61.....	64	31	95	42	11	53	5	2	7	2	...	2	12	7	19	109	72	181	109.76	64.81	174.57	55.55	65.43	10.93	10.80	10.88	7.06	7.61	7.82				
1861-'62.....	174	12	186	96	8	104	14	1	15	...	...	...	26	10	36	147	65	212	123.75	65.74	189.49	42.10	67.09	21.01	15.21	19.00	9.18	11.90	9.81				
1862-'63.....	330	25	355	197	6	203	17	1	18	3	3	6	57	4	61	203	76	279	168.41	72.31	240.72	42.85	70.45	33.84	5.53	25.34	11.95	4.44	10.76				
1863-'64.....	484	25	509	282	6	288	69	1	70	5	...	5	67	8	75	264	86	350	205.73	77.66	283.39	66.66	40.00	65.75	32.56	10.30	26.40	1.75	7.92	9.51			
1864-'65.....	478	36	514	315	9	324	110	12	122	11	...	11	139	8	147	167	93	260	277.42	83.81	361.23	54.78	31.03	53.64	50.10	9.54	40.69	18.73	6.55	17.01			
1865-'66.....	194	28	222	104	5	109	20	7	27	10	1	11	41	12	53	186	96	282	190.92	90.70	281.62	59.42	20.00	54.50	21.47	13.23	18.82	11.35	9.91	10.99			
1866-'67.....	88	21	109	45	7	52	11	3	14	11	1	12	19	14	33	188	92	280	189.06	89.46	279.12	52.32	28.00	46.85	10.02	15.65	11.82	6.93	11.96	8.44			
1867-'68.....	120	33	153	49	15	64	6	2	8	5	1	6	22	5	27	226	102	328	221.17	96.44	317.61	59.75	65.22	60.95	9.95	5.18	9.50	7.14	4.00	6.23			
1868-'69.....	133	35	168	59	11	70	9	6	15	8	2	10	24	9	33	259	109	368	244.55	108.03	352.58	59.00	39.28	54.69	9.81	8.33	9.35	6.70	6.57	6.65			
1869-'70.....	146	36	182	32	8	40	16	8	24	11	3	14	15	3	18	331	123	454	294.69	108.08	402.77	43.24	36.37	41.67	5.09	2.77	4.36	3.71	2.05	3.27			
1870-'71.....	161	34	195	50	12	62	21	7	28	4	3	7	33	11	44	384	124	508	354.34	121.66	476.00	46.30	36.36	43.97	9.31	9.04	9.24	6.70	7.00	6.78			
1871-'72.....	142	44	186	43	8	51	16	13	29	8	1	9	37	7	44	422	139	561	407.21	131.57	538.78	41.34	27.59	38.34	9.09	5.32	8.16	7.04	4.17	6.34			
1872-'73.....	153	51	204	49	15	64	23	5	28	3	5	8	32	13	45	468	152	620	431.03	144.11	575.14	45.70	39.47	44.13	7.42	9.02	7.82	5.56	6.84	5.88			
1873-'74.....	192	38	230	67	12	79	22	8	30	6	3	9	39	11	50	526	156	682	492.44	151.36	643.80	50.00	35.29	47.02	7.92	7.27	7.76	5.91	5.79	5.88			
1874-'75.....	179	51	230	66	9	75	28	22	50	8	3	11	51	7	58	552	166	718	536.46	164.17	700.63	43.13	21.95	38.66	9.50	4.26	8.27	7.23	3.38	6.36			
1875-'76.....	166	47	213	67	17	84	26	10	36	1	...	1	48	18	66	576	168	744	564.78	165.59	730.37	47.18	37.78	45.45	8.49	10.87	9.04	6.68	8.45	7.09			
1876-'77.....	147	51	198	66	17	83	27	13	40	2	...	2	45	7	52	583	182	765	587.41	176.30	763.71	47.80	45.94	46.89	7.66	3.96	6.80	6.22	3.19	5.52			
1877-'78.....	138	44	182	49	11	60	32	9	41	3	4	7	37	9	46	600	193	793	596.82	184.37	781.19	40.49	33.33	38.96	6.19	4.88	5.88	5.13	5.98	4.35			
1878-'79.....	169	53	222	68	24	92	30	7	37	3	1	4	51	12	63	617	202	819	619.10	196.70	815.80	44.73	54.54	46.93	8.23	6.10	7.72	6.63	4.87	6.20			
1879-'80.....	181	44	225	38	14	52	23	10	33	...	3	3	46	13	59	691	206	897	655.34	196.63	851.97	35.51	35.00	35.37	7.01	6.61	6.92	5.76	5.28	5.65			
1880-'81.....	161	62	223	62	10	72	27	9	36	6	6	12	63	18	81	700	225	925	685.37	211.38	896.75	40.78	23.25	36.92	9.19	8.51	9.03	7.39	6.71	7.23			
1881-'82.....	178	69	247	62	21	83	31	8	39	2	5	7	74	27	101	709	233	942	697.10	232.88	929.98	36.69	34.43	36.08	10.61	11.59	10.86	8.44	9.18	8.61			
1882-'83.....	201	64	265	76	19	95	33	16	49	...	6	6	46	17	63	755	239	994	729.89	235.27	965.16	49.05	31.03	41.13	6.30	7.22	6.52	5.05	5.72	5.22			
1883-'84.....	286	64	347	68	13	81	35	8	43	3	1	4	51	16	67	884	262	1,146	797.21	243.27	1,040.48	42.03	34.21	40.51	6.39	6.57	6.44	4.90	5.33	4.99			
1884-'85.....	229	91	320	65	24	89	37	12	49	1	1	2	84	21	105	926	295	1,221	902.41	270.89	1,173.34	34.76	41.37	36.32	9.31	7.75	8.94	7.55	5.95	7.19			
1885-'86.....	234	69	303	55	22	77	58	15	73	2	3	5	79	23	102	986	301	1,267	936.39	283.23	1,219.62	28.35	34.92	29.96	8.54	8.12	8.36	6.81	6.32	6.69			
1886-'87.....	206	62	268	57	15	72	49	17	66	2	1	3	73	19	92	991	311	1,302	956.07	297.36	1,253.43	31.49	28.48	30.90	7.63	6.38	7.34	6.22	5.23	5.99			
1887-'88.....	247	71	318	59	10	69	52	14	73	3	1	4	95	25	120	1,029	332	1,361	1,009.55	315.55	1,325.08	28.23	20.00	26.64	9.41	7.92	9.06	7.67	5.64	7.41			
1888-'89.....	213	67	280	50	20	70	27	27	54	4	2	6	86	28	114	1,075	322	1,397	1,049.99	323.83	1,373.82	29.94	25.97	28.69	8.19	8.65	8.30	6.92	7.02	6.94			
1889-'90.....	274	71	345	39	6	45	43	6	49	...	3	3	112	28	144	1,155	350	1,505	1,108.57	326.53	1,435.10	20.10	13.95	18.12	10.13	8.59	9.76	8.30	7.48	8.04			
1890-'91.....	271	81	352	36	30	66	38	15	53	1	1	2	98	30	128	1,253	355	1,608	1,160.62	344.44	1,505.06	20.81	39.47	26.51	8.44	8.71	8.51	6.87	6.96	6.89			

The number of admissions, 352, exceeds that of any other year since the war. The number reported as recovered, 66, a little more than one-fourth the whole number of discharges, including deaths, is quite as high a rate as could be expected considering the chronic character of the majority of the cases when admitted. There were 128 deaths, which is about $8\frac{1}{2}$ per cent. of the average number resident, and less than 7 per cent. on the whole number under treatment. This is a low mortality, especially if we take into account the advanced age of so large a proportion of our inmates. The soldier of the late war is an old man now. The most noteworthy fact in these statistics, and the one most important in its bearing on the welfare of the hospital and its inmates, is that the number under treatment June 30, 1891, 1,608, is more than 100 in excess of the number remaining June 30, 1890, 1,505, which, in its turn, was more than 100 greater than the number remaining June 30, 1889, viz, 1,397. This shows that we have reason to expect an annual gain of more than 100 insane persons, and that large additional accommodations must be built to provide for this increase. This unexpectedly large accession is mainly due to the number who have been received from the different branches of the National Home for Disabled Volunteer Soldiers, no less than 113 of whom, with their added burden of years and infirmities, have come to us during the year. The question for us is no longer whether the hospital for a large or a small number is the best ideal provision for the insane, but how shall we manage to take care of what we now have and of the increasing number who are every year pouring in upon us under existing law? We have no pride of opinion in the matter; we have only compassion on the multitude. Whatever theories of the treatment of the insane we may have entertained, it is the fact of almost overwhelming numbers that now confronts us, and our problem is, out of the necessities of the situation, to create the opportunity for more humane care, a more enlightened treatment of the whole body of patients than any that they have hitherto known. The large number of cases to be cared for justifies their segregation into distinct groups, each with buildings and grounds apart from the rest, and so renders possible a careful classification, with all those varying conditions in surroundings which experience has shown to be the best suited to their needs, a classification more complete and satisfactory for their treatment than a hospital of fewer numbers and more restricted area could well afford. In this respect at least there is truth in the adage that in numbers there is strength.

Even at the risk of repeating some things that may have been said in former reports, it seems proper to call attention to a few things that have been done at St. Elizabeth looking in the direction of the provision for special classes of the insane. We have in Howard Hall, and the addition completing the building according to the original plan, which is now in process of erection, a provision that is complete and satisfactory in itself for the care and custody of the criminal and dangerous classes of the male patients. Howard Hall has 120 single rooms designed as lodging rooms for its inmates. It has, entirely distinct from the rest of the hospital, dining room, work rooms, amusement room, smoking rooms, with an outdoor court of more than a fourth of an acre, inclosed within the building's walls, with its green turf and its sunshine, where trees are already casting their shadow and where the inmates may walk at will and yet be secure. The provision is now so complete in itself that it is hoped it may not be found necessary to again extend it; indeed, it is difficult to see how any more satisfactory arrangement than the present could be made for this unfortunate class, who, when

associated with the other patients, are a constant source of anxiety and apprehension.

Another instance where the segregate plan of provision has given especial satisfaction is seen in the female department at the Lodge, a distinct building for the colored women, where, one-tenth of the most violent having been arranged for elsewhere, the remaining nine-tenths are, with hardly an exception, kept busy at some useful occupation. It is one of the pleasantest quarters to visit in the whole establishment. The faces are happy, work is fashionable, and a person doing nothing is decidedly off color.

The Toner Building, designed for the care of the acutely sick, feeble, and paralytic cases among the male patients, with a provision for 100 beds, is a building especially constructed for this class and sufficiently removed from the other departments of the institution to insure quiet and the absence of all unpleasant suggestions from the wards of the active and violent insane. The rooms are light and cheerful, the building has a resident physician, a day and night service of nurses, and a distinct kitchen where the special diet for the sick is prepared. There are broad piazzas for the inmates, with windows to the floor opening on them. Then there are wide lawns, with great oaks and spreading beeches, where the convalescents may lie at ease in their shadow or sit and smoke and take in the healing that is in the air and sunshine. A pleasant walk through the fields, or through a well-lighted subterranean passage in inclement weather, connects this with the asylum world where it lies apart, and no more satisfactory provision for a hundred of our feeble ones has been found than this.

The Atkins Hall, with its open doors and windows unbarred, offers pleasant and distinct quarters for workingmen among our inmates, who, content with their work, have made it a home. This building, one of the earliest instances of the distinct provision for a class here, has barely accommodation for 50 beds, while there are not less than 200 more who would labor as contentedly as these under surroundings favoring their employment, and have as pleasant homes. Where shall these be located? The last Congress, by an appropriation of \$20,000 for the purchase of additional land for farming purposes, has in a measure answered the question. With this appropriation a tract containing between 400 and 500 acres of arable land has been secured for the hospital. It is a farm susceptible of varied culture, about 3 miles distant from the hospital, beautifully situated, lying on and overlooking the Potomac River, commanding views of both Alexandria and Washington, with long reaches of the river beyond. Here is a new hospital world, a part needing to be reclaimed and all requiring to be brought under productive cultivation, which offers labor well suited to our inmates. It is a field whereon to plant colonies and to make homes. Here we can raise our young stock; here readily can be grown all the corn necessary for our feed meal, all the Irish and sweet potatoes that we require, with melons and fruits sufficient for our whole household, who in their turn might be expected to supply most of the labor needed, so making of these acres their fields and their world. They would have home life in farm cottages and outdoor work here, and it would be preferable to listless mental decay in faultlessly arranged and conventionally perfect wards elsewhere. It is in this direction that the modern treatment and care of the insane tends.

Another class not yet provided for in distinct buildings, but for whom such separate provision is this year asked, is that unfortunate one whose insanity is associated with epilepsy. All who have much to do with

the insane know how depressing is the presence of the epileptic upon others, how peculiar they are in disposition, and how unsatisfactory is the provision that can be made for them in the common wards of a hospital. They require day rooms and bedrooms built with special reference to their infirmity, and the provision should include at least two, and preferably four, very different kinds of wards. The supervision should be constant, both day and night attendants, and there should be ample inclosed grounds where they can be out in the open air by themselves. There is no class for whom special provision is more needed or whose separation from the mass of the insane will be attended with more advantage to themselves or will be a greater relief to those from whom they are removed.

The following table is designed to show the amount and the market values of the articles produced on the land at present under cultivation. The showing is creditable, the estimated value, \$39,598.74, being considerably in advance of previous years. Does it pay to have a farm connected with a hospital for the insane, is a question that can safely be answered in the affirmative. With the present farm, including as it does the hospital site and grounds, it has been found impracticable to keep the care of the lawns, the use of teams for the delivery of goods for the hospital, the building and maintaining of roads, the excavation for new buildings, etc., distinct from farm expenses proper, but with the occupation of the new farm the intention is to keep a strict account of receipts and expenditures there, so that the result of the enterprise in dollars and cents can be accurately determined. The potato crop, 1,581 bushels of Irish and 1,100 bushels of sweet potatoes, is very creditable when we consider the number of acres under cultivation; but there is no good reason, with our new aquisition of land, why in ordinary seasons we shall not be able to raise the 8,000 bushels, more or less, that we annually consume. Some of the land acquired is admirably adapted to the growth of cantaloupes and watermelons, and an abundant harvest of these, sufficient for the needs of all the inmates, may be hereafter expected. Our vineyard afforded last year over 7 tons of delicious grapes. In a few years we may easily double these figures. The milk produced and consumed in the house during the year amounted to 79,535 gallons. It will be seen that the limit of 200 gallons per day, so long striven for, has been exceeded at last. Nevertheless, with our new farm we may yet hope to come to a daily product of 300 gallons, which would still be less than a quart for each inmate.

Table of farm and garden products.

Apples, 48 bushels, at 50 cents.....	\$24. 00
Asparagus, 1,785 bunches, at 6 cents	107. 10
Beans (Lima), 358½ bushels, at \$1.50	537. 75
Beans (string), 208¾ barrels, at 75 cents.....	156. 56
Beets, 1,174 bunches, at 2 cents.....	23. 48
Beets, 400 bushels, at 50 cents	200. 00
Cabbage, 69,320 heads, at 7 cents	4, 852. 40
Cabbage (Early York), 36 barrels, at \$1	36. 00
Cabbage (sprouts), 14 barrels, at \$2	28. 00
Cantaloupes, 7,070, at 7 cents	494. 90
Carrots, 311 bushels, at 50 cents	155. 50
Carrots, 20 bunches, at 2 cents	40
Celery, 21,065 bunches, at 5 cents.....	1, 053. 25
Cherries, 2,778 quarts, at 6 cents.....	166. 68
Chickens, 118 at 40 cents apiece.....	47. 20
Cucumbers, 141 dozen, at 10 cents	14. 10
Currants, 305 quarts, at 10 cents.....	30. 50

Corn (green), 1,417 dozen ears, at 15 cents per dozen	\$212.55
Ducks, 165, at 30 cents	49.50
Eggs, 1,466½ dozen, at 20 cents	293.30
Egg plants, 8,540, at 6 cents	512.40
Figs, 96 quarts, at 15 cents	14.40
Grapes, 14,759 pounds, at 5 cents	737.95
Kale, 363 barrels, at \$1.50	544.50
Lettuce, 20,476 heads, at 3 cents	614.28
Milk, 79,535 gallons, at 25 cents	19,883.75
Onions, 18,999 bunches, at 2 cents	379.98
Onions, 200 bushels, at 70 cents	140.00
Onions (sets), 5½ bushels, at \$4	22.00
Oyster plants, 8,128 bunches, at 3 cents	243.84
Parsley, 6,659 bunches, at 2 cents	133.18
Parsnips, 357½ bushels, at 70 cents	250.25
Pears, 8¼ bushels, at 75 cents	6.19
Peas, 465 barrels, at \$3	1,395.00
Peppers, 19½ bushels, at \$1	19.50
Pork, 24,840 pounds, at 6 cents	1,490.40
Potatoes (Irish), 1,581 bushels, at 75 cents	1,185.75
Potatoes (sweet), 1,100 bushels, at 50 cents	550.00
Pumpkins, 5,570, at 2 cents	111.40
Plums, 3 bushels, at \$1	3.00
Radishes, 19,572 bunches, at 2 cents	391.44
Rhubarb, 1,030 bunches, at 2 cents	20.60
Squashes (summer), 44,196, at 1 cent	441.96
Tomatoes, 1,634 bushels, at 40 cents	653.60
Turnips, 2,206 bushels, at 40 cents	882.40
Watermelons, 473, at 10 cents	47.30
Sale of stock	440.50
Total	39,598.74

The following products, consumed on the farm, can not be considered a part of the profits:

Corn fodder (green), 12 acres, at \$35	\$420.00
Corn fodder (dry), 70 tons, at \$15	1,050.00
Grass (green), 10 acres, at \$35	350.00
Hay, 325 tons, at \$14	4,550.00
Rye (dry), 75 tons, at \$13	975.00
Rye (green), 12 acres, at \$30	360.00
Oats (green), 10 acres, at \$35	350.00
Oats (dry), 50 tons, at \$15	750.00
Turnips, 426 bushels, at 40 cents	170.40
Parsnips, 68 bushels, at 45 cents	30.60
Total	9,006.00

ESTIMATES FOR THE FISCAL YEAR ENDING JUNE 30, 1893.

For current expenses	\$363,000
For general repairs and improvements	20,000
For additional accommodations, viz: distinct pavilions for 150 of the epileptic insane, including furnishing and heating	63,250
For special improvements, viz:	
Rebuilding machine shop	6,372
Electric plant for lighting and ventilating	22,500
Inclosing new farm and refitting buildings on the same	7,360
For deficiency in support for the fiscal year ending June 30, 1892	22,000

The estimate for current expenses is for support, clothing, and treatment in the Government Hospital for the Insane of the insane from the Army and Navy, Marine Corps, and Revenue-Cutter Service, inmates of the National Home for Disabled Volunteer Soldiers, persons charged with or convicted of crimes against the United States who are insane, all persons who have become insane since their entry into the military or naval service of the United States who have been admitted to the

hospital and who are indigent, also the indigent insane of the District of Columbia. Patients who are under the law entitled to admission belonging to other classes are not included in the estimate the expense of their care being provided for in other ways. The estimate is based on a probable average number of 1,650 at a per capita annual cost of \$220. Congress for many years has divided the appropriation between the sundry civil and the District bill. Following the ratio of former years based on the increase in numbers of the District patients during the past year the amount to be appropriated in the District bill will be \$94,700, leaving \$268,300 to be provided in the sundry civil bill. Of the latter amount it is desired that not exceeding \$1,500 may be used for defraying the expense of returning patients to their friends.

The sum of \$20,000 is needed for current repairs and improvements. This estimate is designed to include the repainting of the exterior wood-work of the main hospital buildings and the renewal of the frescos on the chapel walls and ceiling, a very necessary repair. Each year for the last decade has witnessed some addition to the number of buildings, extensions rendered necessary by the increasing number of inmates, so everywhere more floors and ceilings want renewal, gutters and roofs need to be gone over, the very considerable changes and repairs incident to the daily needs of a great hospital that must be made, until the \$12,000 that has been appropriated for several years past has come to be insufficient to meet those pressing demands for the work necessary to maintain the hospital in good repair and keep it efficiently equipped to meet the scientific requirements of the times.

The sum of \$68,250 is asked for additional accommodations for the insane. The experience of the last two years shows that we have each year to provide for more than 100 additional inmates, and Congress has wisely decided that each year's added provision shall be that which will afford the greatest relief to the whole by making the hospital most complete in its arrangements for the special care of all classes. The epileptic insane are a class who by reason of their infirmities and peculiarities are best cared for in distinct wards, and, wherever their numbers will justify it, in buildings and grounds arranged and set apart for their use. They are a difficult class to provide for with others, and their association in wards in common with the rest of the insane is a trial to those of sensitive feelings. The number of the insane afflicted with epilepsy remaining in the hospital June 30, 1891, was 125, and it is understood that there is quite a number of this class in the National Home for Disabled Volunteer Soldiers awaiting room for admission here. The sum asked is to provide accommodations for 150 of the epileptic insane and is intended to include the furnishing and radiators.

The cracks in the walls of the machine shop, built in 1856 and in constant use since, are steadily widening, and the building will now have to be condemned and taken down, whether rebuilt or not. The reason for this is to be found in defects in the original foundation, having been constructed in part on made ground, where the jar of machinery is gradually bringing it to the earth. It is imperatively necessary that the hospital shall have the almost daily use of saw, lathe, and planer, and \$6,375 is asked to rebuild the shop on an enlarged plan and a firm foundation.

To introduce an electric plant for lighting and ventilating the hospital \$22,500 will be required. The gas plant was built many years ago, when the hospital area was less than one-half its present extent, and if this system of lighting is continued, the works and mains, long since outgrown, will require to be wholly renewed, at an expense not varying

much from that necessary to provide a system of electric lighting. But the latter has now passed beyond the age of experiment and is recognized as the safest and most satisfactory method of lighting buildings occupied by the insane. Nonheating incandescent lights and fans for ventilating sick rooms are only illustrations of the needs that will be met by a properly arranged electric plant in a hospital. Congress should provide for either electric light or renewal of the gas works during the coming year. It is thought that the sum asked will cover the cost of boilers, dynamos, cables, lamps, etc.

It will be necessary at the new farm to place wire fences as a temporary barrier for the young stock, to separate the pasturage from the cultivated fields, while at the same time plants should be set for a permanent hedge to inclose the whole. The buildings now standing there, the old mansion house and another brick structure, although somewhat deteriorated with time and neglect, can, with but moderate expenditure for refitting and repairs, be made serviceable for hospital use. The sum of \$7,360 is asked for these necessary changes to put the new land in condition for working and occupation.

There will be a deficiency in the amount for current expenses for the fiscal year ending June 30, 1892, viz, \$22,000.

The estimate for current expenses for the year 1892, which under the law the Superintendent was required to make on or before September 1, 1890, was based on an estimated average of 1,475 indigent persons under care and treatment, an estimate which time has shown was entirely too small, the increase in the number of inmates being unusual, for the past two years at the rate of more than 100 annually. The first day of the year for which the appropriation was made finds us with more than 100 inmates in excess of the estimated number, and the average number of indigent patients for the year can hardly fail to be considerably in excess of this. Coupled with this excess of numbers is the fact of a great advance in the price of all meats and flour, an advance by no means offset by the fall in the price of sugar. It accordingly becomes necessary to revise the estimate and assume an average of at least 1,575 indigent patients, giving a deficiency of \$22,000 in the appropriation for the current expenses of the hospital.

The year has been without changes in the medical staff other than the promotion of Dr. C. H. Latimer from the position of night medical inspector to the place made vacant by the death of Dr. Means, that of fifth assistant physician. Mr. J. A. Barry was then assigned to night service as an advanced medical student, and later, having graduated in medicine, he was made night medical supervisor, thus continuing the medical service unbroken for the 24 hours of the day. In so large a hospital as this such continuous service becomes almost a necessity. The medical officers throughout have rendered faithful and efficient service. The dentist continues to find abundance of work in a professional line and his services are appreciated by the patients. The valuable work of the pathologist speaks for itself, as will be seen by a glance at the pathological supplement herewith.

We have again been kindly assisted by amateurs from Washington in the evening entertainments for the inmates, and friends have not been unmindful of us in their gifts. Thoughtful readers have laid aside magazines and other literary matter for our tables. Mrs. Gangewer has presented the female wards with three reclining chairs that have been a comfort to some of our household, while Dr. Toner has given for the building that bears his name parts of an antique mantel and a sundial, which when the grades about the building are completed will stand

on the lawn to mark the flight of the hours that leave us sunny memories. But the most noticeable gift of the year is that of a cottage for the insane, a gift which marks a new era in the history of the hospital. This is a building which a Washington lady, out of generous purpose and far-seeing philanthropy, having obtained the sanction of the proper authorities, has caused to be erected on the grounds of the hospital, and which she gives to the United States, in order that her afflicted child may have a home there while she needs it, and that at last there may be, in the language of the law, "vacancies" at St. Elizabeth, where residents of the District of Columbia having means, when overtaken by insanity, can be suitably accommodated without encroaching upon the rooms provided by the Government for those who by reason of indigence are unable to defray the expenses of their care. It will be, when completed a comfortable two-story building of brick, with brown-stone trimmings, standing distinct from the hospital, but convenient to it and in harmony with the surroundings. It will be essentially a private house, with pleasant suites of rooms, tasteful in arrangement, and specially planned for the comfort and well-being of its inmates. It is confidently hoped that it will be ready for occupation by the new year. The gift is a most liberal one, a departure from established usage in the disposal of means at once so marked and so praiseworthy that, standing as a memorial of the love and benevolent wisdom of the donor, it will also teach by example the power for good that there is in money. Such example should have followers in this city of fortunes made in real estate, and something more enduring than fortunes be gained by building on corner lots of Government land.

This hospital, with its responsibilities and far-reaching aims year by year keeping pace in their growth with that of the nation which created and has thus far sustained it, is again commended to the liberality of Congress for the means to continue its humane work.

We are, sir, very respectfully,

J. M. TONER,
President.

W. W. GODDING,
Superintendent, ex-officio Secretary of the Board.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

GOVERNMENT HOSPITAL FOR THE INSANE.

Washington, D. C., August 31, 1891.

SIR: In accordance with the act of Congress approved June 4, 1880, requiring the Superintendent of the Government Hospital for the Insane to make a report to Congress annually of the detailed expenditures of the hospital for the preceding fiscal year, I have the honor to submit the following statement.

I am, sir, very respectfully, your obedient servant,

W. W. GODDING,
Superintendent.

Hon. JOHN W. NOBLE,
Secretary of the Interior.

	Sept.	Oct.	Nov.	Dec.	1891.	Jan.
Levi Baker	30	127				
A. Henrick	2	145				
R. L. Hyde	3	146				
John D. Broadus	6	151				
Emma Ferguson	30	184				
M. Edelen	30	185				
R. Howard	30	186				
L. Smallwood	30	187				
C. Denekas	30	190				
Chas. F. Matlaglo	30	199				
George M. Oyster	30	214				
Somerset R. Waters	30	218				
James F. Oyster	30	220				
James L. Barbour & Son	30	221				
The Hygienic Ice Company	30	242				
R. I. Varnell	30	244				
R. Howard	18	272				
M. Edelin	31	287				
George M. Oyster	31	292				
C. Denekas	31	300				
C. C. Carroll	31	301				
Somerset R. Waters	31	303				
The Hygienic Ice Company	31	304				
W. M. Galt & Co.	31	305				
Jas. L. Barbour & Son	31	311				
Browning & Middleton	31	312				
G. Taylor Wade	31	313				
Poole & Brooke	31	320				
B. Charlton & Co.	31	325				
Frank Hume	31	326				
G. G. Cornwell & Son	28	366				
Jas. F. Oyster	29	373				
Geo. M. Oyster	29	375				
R. I. Varnell	29	379				
C. Denekas	29	380				
Somerset R. Waters	29	381				
J. C. Ergood & Co.	29	385				
W. S. Hoge & Bro.	29	386				
Jas. L. Barbour & Son	29	387				
The Hygienic Ice Company	29	391				
Browning & Middleton	24	442				
Rabbit & Crown	31	467				
R. I. Varnell	31	470				
C. Denekas	31	471				
S. S. Daish & Son	31	472				
Somerset R. Waters	31	486				
J. Harry King	31	492				
W. W. Conner	31	532				
Frank Hume	31	535				
G. G. Cornwell & Son	31	538				
H. L. Strang	31	542				

[illegible]

[illegible]

30	Henry C. Harper	210	671.57	248.28	27.63	20.55	38.12	2.10	5.00	6.10	28.80	5.00	9.63	\$1.50	18.24	1.45	4.50	136.05	9.42	65.00	3.30	3.75	16.70
20	Lansburgh & Bro	219	746.19		19.50																		
30	The Washington Post Company	227																					
30	The Washington Critic Company	228																					
30	The Sunday Gazette	230			12.18																		
30	Jas. J. Chapman	234				20.55																	
30	Woodward & Lothrop	241																					
30	Wm Ballantyne & Son	243				13.78																	
30	McFarland & Stephenson	245																					
30	Geo. W. Knox	246					38.12	2.10															
18	John Mulcahy	271																					
31	R. C. Jones	284				3.00																	
31	Department of the Interior	297				82.58																	
31	Jeanette Blum	302		\$19.44																			
31	W. S. Brown	306	\$367.20																				
31	Baltimore and Potomac R. R. Co	308					1.28																
31	Geo. W. Knox	309					78.52																
31	J. B. Chamberlain	328																				22.23	
31	Wyckoff, Seamans & Benedict	329																					
31	Albert A. Trego, agent	330				1.50																	
31	Chas. C. Fulton & Co	147					2.18																
31	The Evening Star	148																					
31	New York Press	153																					
31	Manufacturers' Record	154																					
31	The Evening Star	155																					
29	Wm. Ballantyne & Sons	388				16.35																	
29	J. U. Burket & Co	389																					
29	Robert Cohen	390	92.70																				
29	Geo. W. Knox	393					18.24																
29	Albert A. Trego, agent	395					1.45																
6	John Mulcahy	416						4.50															
13	R. C. Jones	424				3.00																	
31	R. C. Jones	448				6.00																	
31	Chesapeake and Potomac Tel. Co.	451																					
31	The Washington City Post-Office	458																					
31	Richard Lindner	463		6.20																			
31	Scoville Manufacturing Company	464		558.00																			
31	Henry C. Harper	466	294.02																				
31	M. J. Quinn	469				35.50																	
31	S. Bieber	475	\$1,753.00																				
31	B. Rich & Sons	478	293.98																				
31	B. H. Stinemetz & Son	479		55.53																			
31	Guy, Curran & Co	480		180.00																			
31	Woodward & Lothrop	485																					
31	George W. Knox	488		512.86																			
31	United States Express Co	489					9.42																
31	Baltimore and Potomac R. R. Co	490					.50																
31	Adams Express Co	491					65.00																
31	The Sunday Gazette	170					3.30																
31	Nelson P. Reed & Co	175																					
1891.		512																					
Jan. 6	Robert C. Jones					3.00																	

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

DRY GOODS AND CLOTHING, BOOKS, STATIONERY, AND MISCELLANEOUS—Continued.

Date.	Furnished by—	On voucher numbered—	Boots, shoes, and slippers.	New clothing.	Clothing material.	Hats.	Notions.	Books and periodicals.	Stationary and postage.	Freight and hauling.	Incidental work, etc.	Advertising.	Electrical instruments.	Photographic instruments, etc.	Grand total.
1891. Jan. 27	The Sunday Gazette	524						\$9.57							
31	Saks & Co.	533		\$5.00											
31	The Washington Critic Co	554						21.00							
31	Geo. J. Johnson	555			\$151.00										
31	Adams Express Co.	556								\$6.10					
31	Baltimore and Potomac R. R. Co.	557								1.39					
31	United States Express Co.	558								1.10					
31	The Washington Post Co.	183										\$4.50			
31	W. H. Moore	573						177.65							
31	Geo. W. Knox	574								23.98					
Feb. 14	John Mulcahy	580									\$6.00				
28	Wm. Hahn & Co	608	\$1,373.94												
28	Geo. W. Knox	609													
28	Adams Express Co.	610								10.72					
28	The Washington Post Co.	193								1.95		4.40			
Mar. 20	John Mulcahy	634									6.00				
20	Jeanette Blum	636		214.11	28.13										
20	S. Bieber	637		1,654.50		\$27.00									
20	Auerbach & Bro	644		63.00											
20	Jos. Auerbach	645					\$155.75								
20	The Washington Post Co.	648						32.16							
30	R. C. Jones	656						3.00	\$44.00						
30	The Washington City post-office	664													
31	Albert A. Trego, agent	668								7.10					
31	Jas. J. Chapman	674						27.60							
31	Department of the Interior	686							94.00						
31	Tysowski Bros	707			46.64										
31	Boyd's Directory Co.	709													
31	J. H. Mills & Co	711													
31	Lansburgh & Bro	715		63.40	948.49		357.18		5.03						
31	A. Lisner	717					1.80								
31	The Washington Post Co.	719						38.04							

[illegible]

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

MEDICAL SUPPLIES, EXPENDED FOR AMUSEMENT OF PATIENTS, ETC.

Date.	Furnished by—	On voucher numbered—	Drugs, medicines, etc.	Alcoholic stimulants.	Instruments, etc.	Returning eloped patients.	Amusement of patients.	Sending to their homes.	Refunded board money.	Pathological supplies.	Grand total.
1890. July 2	Westley Morris	1									
10	Robert H. Owens	4				\$5.00					
14	Walter Brown	6				5.00					
16	Samuel Jones	8				5.00					
23	John S. King	10				5.00					
24	H. Hoffa	12			\$28.50						
31	Humphreys' Homeopathic Medical Co.	21	\$30.00								
31	G. G. Cornwell & Son	38		\$25.00							
31	Scheller & Stevens	42	76.50								
31	Franklin & Co.	44			2.00						
31	Jas. L. Barbour & Son	50		42.59							
31	Daniel Loughran	58					\$190.05				
Aug. 11	Sam. West	81				5.00					
23	John W. Brown	93				5.00					
30	Jas. L. Barbour & Son	120		125.34				\$6.50			
30	Andrew Gill	144									
Sept. 4	Joseph Smith	150				5.00					
17	Nicholas Brooks	164				5.00					
19	John Tillman	167				5.00					
24	George W. Stamp	173				5.00					
30	E. F. Houghton & Co.	202	18.00								
30	F. G. Perry	209								\$76.48	
30	Parke, Davis & Co.	211	94.21								
30	Wm. B. Price Manufacturing Co.	212	213.41								
30	A. C. Patterson, chief clerk	216					49.30				
30	Jas. L. Barbour & Son	221		703.10							
30	S. F. Ware	225	67.71								
30	Z. D. Gilman	226	252.14								
30	Chas. Fischer	236			5.50						
12	C. H. Latimer	261									
Oct. 29	Robert H. Owens	282				5.00		32.75			

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Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

MEDICAL SUPPLIES, EXPENDED FOR AMUSEMENT OF PATIENTS, ETC.—Continued.

Date.	Furnished by—	On voucher numbered—	Drugs, medicines, etc.	Alcoholic stimulants.	Instruments, etc.	Returning eloped patients.	Amusement of patients.	Sending to their homes.	Refunded board money.	Pathological supplies.	Grand total.
1891.											
May 29	C. H. Latimer	898	.....	.....	.....	.....	.....	\$22.95	.....	.....	.....
June 1	J. W. Simpson	902	.....	.....	.....	\$5.00	.....	.....	.....	.....	.....
14	Samuel Jones	903	.....	.....	.....	5.00	.....	.....	.....	.....	.....
16	Chas. McKenzie	904	.....	.....	.....	5.00	.....	.....	.....	.....	.....
30	A. C. Patterson, chief clerk	918	.....	.....	.....	.....	\$34.30	.....	.....	.....	.....
30	Melville Lindsay	928	.....	.....	\$1.25	.....	.....	.....	.....	.....	.....
30	W. M. Galt & Co	929	\$3.50	.....	.....	.....	.....	.....	.....	.....	.....
30	Daniel Loughran	954	.....	.....	.....	.....	307.44	.....	.....	.....	.....
30	G. G. Cornwell & Son	956	.....	\$25.50	.....	.....	134.40	.....	.....	.....	.....
30	Z. D. Gilman	957	119.75	.....	.....	.....	.....	.....	.....	.....	.....
30	S. F. Ware	959	17.70	.....	.....	.....	.....	.....	.....	.....	.....
			2,236.55	971.79	212.89	128.15	1,758.81	120.95	\$46.00	\$76.48	\$5,551.62

Classified expenditures, Government Hospital for the Insane for the fiscal year ending June 30, 1891—Continued.

FARM, GARDEN, AND STABLE.

Date.	Furnished by—	On voucher numbered—	Feed.	Implements, horse-shoes, etc.	Plants and seeds.	Manures.	Live stock.	Harness and repairs.	Vehicles and repairs.	Hay and straw.	Incidental expenses.	Grand total.
1890.												
July 19	John Fitzhugh.....	9					\$100.00					
29	Peter Paul.....	14					400.00					
29	Jas. L. Green.....	15									\$12.50	
31	Frank Aldrich.....	18									12.00	
31	Walter F. Hewett.....	49	\$417.00									
31	J. B. Kendall.....	78							\$28.23			
Aug. 5	A. C. Patterson.....	80									22.14	
30	J. E. Zug.....	98					225.00					
30	Walter F. Hewett.....	111	434.25									
30	W. M. Galt & Co.....	115	311.08									
30	S. S. Daish & Son.....	126	11.18							\$289.65		
Sept. 17	M. Hannan.....	165									1.04	
30	Jas. A. Beall.....	188							90.50			
30	John McDermott & Bro.....	223							262.75			
30	J. H. Mitchell.....	231		\$25.63								
30	John A. Baker.....	235		63.74	\$78.95							
30	Lutz & Bro.....	237						\$63.40				
30	Walter F. Hewett.....	238	381.75									
30	J. B. Kendall.....	240		96.51								
Oct. 18	Paul Hiser, jr., & Bro.....	273		30.00								
31	A. Moffitt.....	293					250.00					
31	W. M. Galt & Co.....	305	587.50									
31	Thos. Dowling.....	307			29.40							
31	A. Mullikin.....	310					150.00					
31	S. S. Daish & Sons.....	31	29.19							245.48		
31	Pitney & Shannon.....	323		24.52								
31	Walter F. Hewett.....	327	362.75									
Nov. 7	M. J. Stack.....	347									3.00	
27	Francis A. Wahler.....	358					350.00					
29	Samuel J. Allen.....	368			16.00							
29	S. Bensinger.....	369					260.00					

Classified expenditures, Government Hospitals for the Insane, for the fiscal year ending June 30, 1891—Continued.

FARM, GARDEN, AND STABLE—Continued.

Date.	Furnished by—	On voucher numbered—	Feed.	Implements, horse-shoes, etc.	Plants and seeds.	Manures.	Live stock.	Harness and repairs.	Vehicles and repairs.	Hay and straw.	Incidental expenses.	Grand total.
1890.												
Nov. 29	Jas. A. Beall	374	.....	.....	.....	\$135.00	.....	.....	\$39.00	.....	.....	.....
29	The Scott Fertilizer Company	377	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dec. 18	Walter F. Hewett.....	428	\$535.00	.....	.....	.....	.....	.....	.....	.....	\$3.50	.....
19	D. Ball	431	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Benj. F. Cox	432	.....	.....	\$16.00	.....	.....	.....	.....	.....	.....	.....
22	Jas. Ayers	434	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	T. Edward Magruder	435	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Mary F. Stone	443	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Hoops Bro. & Thomas	455	.....	.....	47.13	.....	\$175.00	.....	.....	.....	.....	.....
31	S. S. Daish & Sons	472	69.03	.....	.....	.....	.....	.....	.....	\$231.15	.....	.....
31	Chas. T. Carter & Co.....	477	.....	\$39.00	.....	.....	.....	.....	.....	.....	.....	.....
31	Walter F. Hewett.....	484	214.25	.....	.....	.....	.....	.....	.....	.....	.....	.....
1891.												
Jan. 31	do	537	224.13	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	T. B. Middleton	540	.....	.....	.....	.....	.....	.....	.....	.....	76.00	.....
31	S. S. Daish & Son	545	.....	.....	.....	.....	.....	.....	.....	211.12	.....	.....
31	John McDermott & Bro	550	.....	.....	.....	75.00	.....	.....	46.25	.....	.....	.....
31	Adams Express Company	556	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Feb. 11	T. B. Middleton	577	.....	.....	.....	.....	.....	.....	.....	9.77	.....	.....
19	Jeremiah Allen.....	584	.....	.....	.....	.....	12.00	.....	.....	.....	.....	.....
28	John Boyle.....	589	.....	.....	.....	.....	12.00	.....	.....	.....	.....	.....
28	Ann S. Simpson.....	592	.....	.....	.....	.....	6.00	.....	.....	.....	.....	.....
28	Richard Anderson	593	.....	.....	.....	.....	6.00	.....	.....	.....	.....	.....
28	Walter F. Hewett	598	373.22	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	S. S. Daish & Sons	606	.....	.....	.....	.....	.....	.....	.....	207.07	.....	.....
28	George Blaine	625	.....	.....	.....	.....	27.00	.....	.....	.....	.....	.....
Mar. 20	W. M. Galt & Co	635	1,136.07	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Walter F. Hewett	663	409.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Peter Henderson & Co	679	.....	.....	42.31	.....	.....	.....	.....	.....	.....	.....
31	S. S. Daish & Son.....	687	335.72	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	John McDermott & Bro	700	.....	.....	.....	.....	.....	.....	2.50	.....	.....	.....

	703	23.25	415.39	6.00	43.62	191.98	\$14 402.06
31 Lutz & Bro.....	729						
31 J. H. Mitchell.....	737			6.00			
31 Thomas Langley.....	768		415.39				
Apr. 30 Walter F. Hewett.....	771				473.21		
30 S. S. Daish & Son.....	773				22.50		
30 Jas. A. Beall.....	781						
30 Jno. A. Baker.....	782	219.88	365.66				
30 W. M. Galt & Co.....	815		539.00			5.00	
May 2 Wm. Anderson.....	821			12.00			
12 A. B. Suit.....	829					29.80	
27 Melville Lindsay.....	842						
29 Peter Henderson & Co.....	846		41.50				
29 Geo. Pinney.....	867		33.60				
29 S. S. Daish & Son.....	871				101.12		
29 Orndorff & Truxton.....	872						
29 W. M. Galt & Co.....	873	65.81	146.00				
29 Chas. T. Carter & Co.....	879		352.63				
29 Walter F. Hewett.....	899			43.25			
29 John Saul.....	915		172.75				
June 30 Walte F. Hewett.....	925						
30 W. L. King & Bro.....	928	47.65					
30 Melville Lindsay.....	929	21.00					
30 W. M. Galt & Co.....	930		250.36	75.00	42.87		
30 S. S. Daish & Son.....	936				60.50		
30 John McDermott & Bro.....	940				86.11		
30 J. Blake Kendall.....	955	32.18					
30 John A. Baker.....	962		7.43				
30 Lutz & Bro.....	966						
30 Adams Express Co.....							
		689.17	808.11	1,991.00	1,811.44	191.98	\$14 402.06
	7,707.25						

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

REPAIRS AND IMPROVEMENTS.

Date.	Furnished by—	On voucher numbered—	Lumber, doors, etc.	Hardware, etc.	Engineers' and plumbers' supplies.	Paints, oils, glass, etc.	Roofing.	Iron work, etc.	Plastering, etc.	Sundry small repairs, etc.	Fire and other apparatus.	Masons' supplies.	Buildings.	Grand total.
1890.														
July 11	Burchard & Rollow	5				\$5.00				\$136.50				
30	William F. Anderson	17												
30	Charles Becker	22				139.20								
30	Francis Miller	36				12.45								
30	W. H. Butler	54				13.20								
30	W. D. Wavill	61								16.00				
30	E. G. Schafer & Co.	64								78.20				
30	Charles Becker	102				139.20								
30	William Anderson	103								80.50				
30	Samuel M. Frazier	107							\$10.24					
30	Shanahan, Reilly & Co.	108				138.65								
30	Eureka Fire Hose Co.	112									\$540.00			
30	Geo. Ryneal, jr.	121				4.40								
30	J. H. Chesley & Co.	124		\$33.41										
30	Robert Leitch & Sons	128			\$128.50									
30	R. L. Jones & Co.	111			214.34		\$156.75							
30	Robert Leitch & Sons	112												
30	The P. Hanson Hiss Manufacturing Co.	113	\$273.65											
30	J. Hillengass	114						\$233.86						
30	Libbey, Bittinger & Miller	115	236.32											
30	W. M. Whyte & Bro.	116						261.38						
30	Robert Leitch & Sons	117			52.40									
30	J. H. Chesley & Co.	118		22.52										
30	W. D. Campbell & Co.	119					13.80							
30	Wm. H. Richards & Co.	120										\$35.00		
30	Jas. H. McGill	121										6.39		
30	Thos. W. Smith	122	16.10											
30	Potomac Stone Company	124										413.38		
30	Sam'l M. Frazier	125										99.93		
30	Robert Leitch & Sons	126			502.86									
30	Wm. Anderson	160												
Sept. 13	E. J. Brooks & Co.	176		119.16						35.50				

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Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

REPAIRS AND IMPROVEMENTS—Continued.

Date.	Furnished by—	On voucher numbered—	Lumber, doors, etc.	Hardware, etc.	Engineers' and plumbers' supplies.	Paints, oils, glass, etc.	Roofing.	Iron work, etc.	Plastering, etc.	Sundry small repairs, etc.	Fire and other apparatus.	Masons' supplies.	Buildings.	Grand total.
1891.														
May 29	Robert Leitch & Sons	47			\$84.35				\$10.50					
29	Haliday & Richardson	48												
29	Charles T. Carter & Co.	49		\$39.98										
June 30	Charles H. Pleasants	920				\$5.18								
30	William H. Butler	927				27.03								
30	E. N. Gray & Co.	933								\$25.00				
30	Shanahan, Reilly & Co.	934				63.57								
30	Thomas Somerville & Sons	941				52.00								
30	F. P. May & Co.	943		48.76										
30	L. H. Schneider's Son	953		103.89										
30	J. H. Chesley & Co.	964		4.04										
30	E. J. Brooks & Co.	976		62.09										
30	J. Hillengass	51						\$160.32						
30	Pettit & Dripps	52						84.15						
30	Thomas Somerville & Sons	53			13.83									
30	Richard H. Willett	220	\$396.19											
30	Church & Stevenson	221	103.20											
30	Hayward & Hutchinson	222									\$21.00			
30	Thomas W. Smith	223	18.58											
30	Charles White & Co.	224						229.35						
30	Thomas Somerville & Sons	225			143.85									
30	S. C. Forsaith Machine Co.	227									2,000.00			
30	Charles White & Co.	228						38.80						
	Total		5,233.12	2,151.59	3,878.39	2,284.49	\$852.07	1,102.92	824.59	3,196.22	6,274.01	\$5,287.27	\$147,43.35	\$45,828.02

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

SALARIES AND WAGES.

Date.	Furnished by—	On voucher numbered—	Superintendent, physical, and general office.	Ward service.	Inside domestic department.	Engineer's department.	Farm and garden, hauling coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1890.												
July 2	Mary Cator	2										
24	L. M. Cross	11							\$11.52			
31	Etta Harrison	20							8.50			
31	Jane Beavan	23							11.75			
31	Pay roll—support	74	\$1,660.47	\$2,880.77					13.50			
31	do	75		1,520.14	\$794.16							
31	do	76			559.92		\$1,352.74			\$509.11		
31	do	77				\$779.32	795.85					
31	Pay roll—buildings and grounds.	110										
Aug. 12	Rose Hardisty	82							12.24			
16	Gennie Biggs	83							8.50			
18	Ida V. Maryman	84							10.20			
19	H. M. Andrews	85							7.68			
19	L. M. Cross	86							17.00			
20	Fannie S. Tippet	87							13.50			
21	Emma Green	88							10.20			
23	Lizzie Langley	89							15.00			
25	Sarah M. Lanham	94							8.50			
28	Mary Norfolk	95							14.28			
28	Sarah Sweeney	96							8.50			
28	Ellen Bowling	97							24.50			
30	Pay roll—support	130	1,485.26	442.50								
30	do	131		917.50								
30	do	132		846.22								
30	do	133		691.77								
30	do	134		462.86								
30	do	135		752.50								
30	do	136		442.95								
30	do	137			809.16							
30	do	138			546.33							
30	do	139										
30	do	140					1,093.33			477.31		

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

SALARIES AND WAGES—Continued.

Date.	Furnished by—	On voucher numbered—	Superintendent, physi- cians, and general of- fice.	Ward service.	Inside domestic depart- ment.	Engineer's department.	Farm and garden, haul- ing coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1890.												
Aug. 30	Pay roll—support	141				\$784.16	\$391 75	\$747.33				
30	do	142										
30	do	143					911.52	974.93				
30	Pay roll—buildings and grounds	123						275.84				
30	do	127							\$13.50			
Sept. 4	Rose Hardisty	148							9.86			
4	Maggie O'Leary	149							12.75			
5	Annie R. Anderson	152							17.50			
5	Etta Harrison	153							8.50			
8	M. A. Dodge	155							12.75			
9	Ida V. Maryman	156							8.50			
9	L. M. Cross	157							13.50			
10	O. A. Moore	159							8.50			
13	M. B. Diggs	161							12.75			
16	C. E. Gardner	162							8.50			
17	Lizzie Langley	163							12.24			
18	R. Laurie	166							8.50			
20	E. Cheseldine	168							13.50			
20	Ellen Bowling	169							9.00			
22	O. A. Moore	170							13.50			
23	S. A. Wood	171							13.50			
23	Fannie S. Tippet	172							13.50			
24	Mary A. Perkins	174							13.50			
25	Sarah M. Lanham	175							8.50			
29	Rose Hardisty	177							13.50			
30	Jane Beavan	178							29.25			
30	M. McInturf	179							21.24			
30	Cath. M. Barnes	180							8.50			
30	Emma Green	181							21.75			
30	Annie Hannan	182							27.20			
30	Etta Harrison	183							15.90			
30	Pay roll—support	247	\$1,486.58	\$629.33								

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Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

SALARIES AND WAGES—Continued.

Date.	Furnished by—	On voucher numbered—	Superintendent, physicians, and general office.	Ward service.	Inside domestic department.	Engineer's department.	Farm and garden, hauling coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1890.												
Oct. 31	Pay roll—support.	344					\$1,033.48					
31	Pay roll—buildings and grounds.	349						\$750.75				
31	do	356						1,105.10				
Nov. 10	Ida Bonell	348							\$9.01			
14	S. A. Wood	349							22.50			
14	Jane Beavan	350							14.18			
15	Ida V. Maryman	351							15.00			
15	Fannie S. Tippet	353							18.00			
15	Kate Goodwin	354							4.08			
18	Kate Rawlings	355							8.50			
18	L. A. McKenney	356							8.50			
20	O. A. Moore	357							13.12			
22	Ellen Bowling	359							22.50			
22	Helen G. Cox	360							9.00			
22	L. M. Cross	361							8.50			
25	Mary F. Cator	362							15.00			
28	M. B. Diggs	364							13.50			
28	Jane Jardine	365							18.00			
29	Lizzie Langley	367							15.00			
29	Etta Harrison	372							17.50			
29	Pay roll—support	396	\$1,694.98									
29	do	397	\$632.50									
29	do	398	1,040.00									
28	do	399	935.83									
29	do	400	733.00									
29	do	401	209.27									
29	do	402	862.50									
29	do	403	234.06									
29	do	404	\$924.66									
29	do	405	549.10									
29	do	406										
29	do	407										
							1,205.83			\$502.50		
							342.67					

29	do	408																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</
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Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

SALARIES AND WAGES—Continued.

Date.	Furnished by—	On voucher numbered—	Superintendent, physicians, and general office.	Ward service.	Inside domestic department.	Engineer's department.	Farm and garden, hauling coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1891.												
Jan. 22	Mary A. Perkins.....	518							\$8.84			
22	H. M. McAndrews.....	520							9.60			
27	Sarah M. Lanham.....	522							12.75			
27	Kate Rawlings.....	523							4.25			
27	Maggie O'Leary.....	525							12.75			
28	Sarah Catterton.....	526							18.00			
29	Jane Beavan.....	527							13.50			
31	J. V. Wilding.....	530							9.00			
31	S. A. Wood.....	531							13.50			
31	Lena M. Cross.....	534							17.00			
31	Emma Green.....	536							12.75			
31	Pay roll—support.....	559	\$1,777.98	\$610.00								
31	do.....	560		993.89								
31	do.....	561		948.38								
31	do.....	562		752.03								
31	do.....	563		317.97								
31	do.....	564		823.82								
31	do.....	565		287.61								
31	do.....	566			\$944.68							
31	do.....	567			512.95							
31	do.....	568								\$492.44		
31	do.....	569					\$1,123.33					
31	do.....	570					314.00					
31	do.....	571				\$854.16		\$871.75				
31	do.....	572					757.43					
31	Pay roll—repairs and improvements	35						279.17				
31	Pay roll—buildings and grounds...	184						564.01				
31	do.....	186						714.63				
Feb. 4	Lizzie Langley.....	576							10.00			
14	H. M. McAndrews.....	579							11.52			
17	Rachel E. Payne.....	581							8.50			
18	L. M. Cross.....	582							13.50			

[illegible]

Classified expenditures, Government Hospital for the Insane, for the fiscal year ending June 30, 1891—Continued.

SALARIES AND WAGES—Continued.

Date.	Furnished by—	On voucher numbered—	Superintendent, physician, and general office.	Ward service.	Inside domestic department.	Engineer's department.	Farm and garden, hauling coal, drivers, etc.	Mechanics and helpers.	Making clothing.	Laundry.	Sunday service.	Grand total.
1891.												
Mar. 31	Pay roll—buildings and grounds	206						\$652.79				
Apr. 6	Mrs. E. C. Phelps	756							\$8.50			
9	R. A. Baker	757							9 00			
15	Jane Beavan	760							15.20			
22	H. M. McAndrews	761							13.44			
25	Ellen Bowling	762							18.00			
27	M. B. Diggs	764							13.50			
29	Sarah M. Lanham	765							13.50			
30	Annie Hannan	767							9 00			
30	M. M. Lewis	795							6.46			
30	Pay roll—support.	801	\$1,665.82	\$625.00								
30	do	802		1,063.83								
30	do	803		1,015.00								
30	do	804		793.07								
30	do	805		250.80								
30	do	806		829.33								
30	do	807		303.37								
30	do	808			\$912.42							
30	do	809			547.82							
30	do	810								\$180.80		
30	do	811					\$1,195.83					
30	do	812					147.77					
30	do	813				\$839.99		727.09				
30	do	814					818.97					
30	do											
30	Pay roll—repairs and improvements	43						227.50				
30	Pay roll—buildings and grounds	208						625.04				
May 7	Emma Green	817							9.00			
7	Etta Harrison	819							16.95			
11	Ellen Bowling	820							15.75			
14	J. V. Wilding	822							13.50			
14	S. J. Poates	823							13.50			
16	O. A. Moore	824							13.50			

[illegible]

Detailed statement of receipts and expenditures for the fiscal year ending June 30, 1891.

RECEIPTS.

Appropriation for support	\$226,000.00
Appropriation for District of Columbia	87,500.00
Appropriation for repairs and improvements	12,000.00
Appropriation for buildings and grounds	49,000.00
Appropriation for additional farm land	10,000.00
Miscellaneous receipts	24,005.98
On hand, buildings and grounds	5,800.33
On hand, support	.63
Total	414,306.94

EXPENDITURES.

Subsistence:

Flour, meal, and crackers	\$16,393.23
Ice	3,563.54
Butter, cheese, and eggs	18,345.89
Fresh meat	20,284.64
Salt and smoked meats	8,786.56
Fish and poultry	7,148.56
Tea and coffee	10,002.31
Sugar and molasses	9,447.62
Lard	799.74
Fruits and vegetables	7,575.06
Other groceries	11,007.36
	113,354.51

House furnishing, fuel, lights, etc.:

Furniture, fixtures, etc.	4,393.13
Bedding	6,330.70
Table and towel linen	820.44
Utensils, crockery, etc.	2,064.13
Kitchen fittings	247.37
Laundry supplies	3,513.22
Carpets	386.19
Hard coal	1,887.30
Soft coal	9,498.32
Wood	416.87
Lights, oils, etc.	1,911.03
Brooms	334.85
	31,803.55

Dry goods and clothing, books, stationery, and miscellaneous:

Boots, shoes, and slippers	2,465.85
New clothing	3,771.60
Clothing material	8,504.02
Hats	226.44
Notions	2,383.94
Books and periodicals	637.86
Stationery and postage	730.78
Freight and hauling	360.34
Incidental work, etc.	67.61
Advertising	179.97
Electrical instruments	160.55
Photographic instruments, etc.	272.00
	19,760.96

Medical supplies, expended for amusement of patients, etc.:

Drugs, medicines, etc.	2,236.55
Alcoholic stimulants	971.79
Instruments, etc.	212.89
Returning eloped patients	128.15
Amusement of patients	1,758.81
Sending to their homes	120.95
Refunded board money	46.00
Pathological supplies	76.48
	5,551.62

Farm, garden, and stable :

Feed	\$7,707.25	
Implements, horseshoes, etc	689.17	
Plants and seeds	808.11	
Manures	360.00	
Live stock	1,991.00	
Harness and repairs	161.15	
Vehicles and repairs	681.96	
Hay and straw	1,811.44	
Incidental expenses	191.98	
		\$14,402.06

Repairs and improvements :

Lumber, doors, etc	5,233.12	
Hardware, etc	2,151.59	
Engineers' and plumbers' supplies	3,878.39	
Paints, oils, glass, etc	2,284.49	
Roofing	852.07	
Iron work, etc	1,102.92	
Plastering, etc	824.59	
Sundry small repairs, etc	3,196.22	
Fire and other apparatus	6,274.01	
Masons' supplies	5,287.27	
Buildings	14,743.35	
		45,828.02

Salaries and wages :

Superintendent, physicians, and general office	19,694.19	
Ward service	56,122.38	
Inside domestic department	17,219.57	
Engineers' department	8,337.80	
Farm and garden, hauling coal, drivers, etc	25,362.22	
Mechanics and helpers	26,989.74	
Making clothing	2,094.79	
Laundry	5,952.11	
Sunday service	400.00	
		162,172.80

On hand, support	740.61	
On hand, buildings and grounds	10,686.36	
On hand, repairs and improvements	1.23	
On hand, additional farm land	10,000.00	
Covered into United States Treasury on support	.63	
Covered into United States Treasury on buildings and grounds	2.63	
Covered into United States Treasury on repairs and improvements	1.96	

Total 414,306.94

Itemized receipts.

Cash received for—

1890.		
July 14.	Board of George Welch	\$65.00
23.	Board of Franklin B. Hayes	65.00
26.	Board of John Weidman	91.00
28.	Board of E. B. Wadsworth	30.00
30.	Board of Chu-e-rah-rah-he-kah	91.00
31.	Sale of stock, etc	48.50
Aug. 6.	Board of Martha Herman	20.00
8.	Board of Amon Woodward	20.00
11.	Board of Agnes James	35.00
16.	Board of E. A. Bradley	50.00
18.	Board of Emily B. Wadsworth	30.00
30.	Board of Joseph Archambeau	109.28
31.	Sale of stock, etc	172.00
Sept. 2.	Board of Amon Woodward	20.00
6.	Board of William H. Hindes	65.00
9.	Board of Earl S. Stone	65.00
10.	Board of Esau Gresham	65.00
12.	Board of Rufus E. Wilcox	65.00
20.	Board of Martha Herman	49.28
20.	Board of Martha Herman	40.00
20.	Board of Jennie M. Lowell	91.00
30.	Board of E. B. Wadsworth	30.00

1890.	
Sept.	30. Board of Adolph M. Berger..... \$65.00
	30. Board of Charles M. Callahan..... 35.00
	30. Board of Sarah R. Cox..... 65.00
	30. Board of Amon Woodward..... 25.00
	30. Board of and special attendance Edward Burchell..... 211.00
	30. Board of Christian Potter..... 65.00
	30. Board of Warren Webster..... 364.00
	30. Board of United States Soldiers' Home patients..... 910.00
	30. Board of S. C. Borrows..... 130.00
	30. Board of Francis M. Cook..... 65.00
	30. Special attendance Rollin Perkins..... 75.00
	30. Board of Bryan Hall..... 65.00
	30. Board of Herman Buchlers..... 130.00
	30. Sale of stock, etc..... 200.60
Oct.	4. Board of Martha Herman..... 20.00
	4. Board of W. H. Zepp..... 91.00
	4. Board of M. A. Gilleland..... 65.00
	17. Board of Frank B. Hayes..... 65.00
	22. Board of Emily B. Wadsworth..... 30.00
	22. Board of Marine Hospital Service..... 1,013.79
	30. Board of Chu-e-rah-rah-he-kah..... 91.00
	31. Board of John Berryman..... 91.43
	31. Sale of stock, etc..... 122.71
Nov.	3. Board of Martha Herman..... 20.00
	3. Board of Amon Woodward..... 20.00
	3. Board of M. E. Cazenove..... 156.00
	10. Board of Charles K. Yancey..... 91.00
	10. Board of John Weidman..... 91.00
	10. Board of Charles M. Callahan..... 25.00
	17. Board of Thomas Hynes..... 130.00
	18. Board of Jos. P. Hutchins..... 72.00
	29. Board of Martha Herman..... 25.00
	29. Board of E. Wadsworth..... 30.00
	29. Board of Amon Woodward..... 20.00
	29. Sale of stock, etc..... 129.54
Dec.	3. Board of Chas. M. Callahan..... 35.00
	5. Board of W. H. Hindes..... 65.00
	8. Board of Esau Gresham..... 65.00
	13. Board of Rufus E. Wilcox..... 65.00
	18. Board of Christian Potter..... 65.00
	31. Board of Martha Herman..... 25.00
	31. Board of Emily B. Wadsworth..... 30.00
	31. Board of Adolph Berger..... 65.00
	31. Board of Sarah R. Cox..... 65.00
	31. Board of E. A. Bradley..... 130.00
	31. Board of and special attendance on Edward Burchell..... 211.00
	31. Board of Amon Woodward..... 25.00
	31. Board of Jos. P. Hutchins..... 72.00
	31. Board of S. C. Borrows..... 130.00
	31. Board of M. A. Gilleland..... 65.00
	31. Board of Chas. M. Callahan..... 25.00
	31. Board of Thos. Hynes..... 130.00
	31. Special attendance on Rollin Perkins..... 75.00
	31. Board of George Welch..... 195.00
	31. Board of Francis M. Cook..... 65.00
	31. Board of Bryan Hall..... 65.00
	31. Board of Herman Buchlers..... 130.00
	31. Board of Earl S. Stone..... 65.00
	31. Board of Frank B. Hayes..... 65.00
	31. Board of United States Soldiers' Home patients..... 962.86
	31. Board of Marine Hospital Service..... 1,097.36
	31. Sale of stock, etc..... 31.35
1891.	
Jan.	20. Board of John Berryman..... 65.00
	21. Board of C. K. Yancey..... 91.00
	26. Board of M. E. Cazenove..... 156.00
	30. Board of Emily Wadsworth..... 30.00
	30. Board of E. A. Bradley..... 25.00
	30. Board of Jennie M. Lowell..... 91.00

1891.		
Jan.	31. Board of John Weidman	\$91.00
	31. Board of Benj. F. Ellis	65.00
	31. Board of Chas. M. Callahan	35.00
	31. Board of Amon Woodward	20.00
	31. Board of Martha Herman	20.00
	31. Sale of stock, etc.	193.78
Feb.	19. Board of Emily B. Wadsworth	30.00
	27. Board of Chu-e-rah-rah-he-kah	91.00
	28. Board of E. A. Bradley	20.00
	28. Board of W. H. Hindes	65.00
	28. Board of Chas. M. Callahan	30.00
	28. Board of Jno. A. Cutter	1,350.00
	28. Sale of stock, etc.	55.05
Mar.	4. Board of Amon Woodward	20.00
	9. Board of Esau Gresham	65.00
	13. Board of Rufus E. Wilcox	65.00
	18. Board of Joseph P. Hutchins	72.00
	31. Board of Adolph Berger	65.00
	31. Board of Amon Woodward	25.00
	31. Board of W. H. Zepp	91.00
	31. Board of Sarah R. Cox	65.00
	31. Board of Christian Potter	65.00
	31. Board of Chas. M. Callahan	30.00
	31. Board of Martha Herman	20.00
	31. Board of E. B. Wadsworth	30.00
	31. Board of M. A. Gilleland	65.00
	31. Board of Soldiers' Home patients	917.14
	31. Board of Martha Herman	20.00
	31. Board of Bryan Hall	65.00
	31. Sale of stock, etc.	158.11
Apr.	10. Board of Herman Buchlers	130.00
	10. Board of R. Perkins	75.00
	10. Board of M. E. Cazenove	156.00
	10. Board of Warren Webster	193.00
	10. Board of Edw. Burchell	211.00
	13. Board of A. D. McCall	65.00
	13. Board of Francis M. Cook	65.00
	14. Board of J. A. Kellogg	20.00
	15. Board of F. B. Hayes	65.00
	17. Board of S. C. Burrows	130.00
	18. Board of E. Stone	65.00
	23. Board of Chas. K. Yancey	91.00
	23. Board of Marine Hospital Service	1,186.71
	30. Board of A. D. McCall	280.00
	30. Sale of stock, etc.	173.14
May	2. Board of Amon Woodward	20.00
	2. Board of Martha Herman	20.00
	4. Board of J. N. Berryman	65.00
	5. Board of Mary E. Watkins	22.00
	6. Board of C. M. Callahan	30.00
	9. Board of M. E. Cazenove	156.00
	12. Board of F. M. Latham	5.00
	16. Board of J. A. Kellogg	20.00
	20. Board of Jennie M. Lowell	91.00
	20. Board of Emily B. Wadsworth	60.00
	22. Board of James Crawford	126.43
	29. Board of F. M. Latham	4.00
	29. Sale of stock, etc.	228.25
June	2. Board of Amon Woodward	20.00
	5. Board of Martha Herman	20.00
	5. Board of Wm. H. Hindes	65.00
	6. Board of Mary E. Watkins	22.00
	8. Board of Esau Gresham	65.00
	11. Board of John A. Cutter	351.00
	13. Board of Joseph Hutchins	72.00
	13. Board of J. A. Kellogg	25.00
	13. Board of Rufus E. Wilcox	65.00
	19. Board of E. F. Stone	65.00
	20. Board of Emily B. Wadsworth	30.00

1891.

June 22.	Board of Thos. Hynes	\$65.00
24.	Board of Chu-e-rah-rah-he-kah	91.00
30.	Board of Adolph Berger	65.00
30.	Board of and special attendance on Edward Burchell.....	211.00
30.	Board of Soldiers' Home patients.....	886.43
30.	Board of M. A. Gilleland.....	65.00
30.	Board of Christian Potter	65.00
30.	Board of Amon Woodward.....	25.00
30.	Special attendance on Rollin Perkins.....	75.00
30.	Board of A. D. McCall.....	65.00
30.	Board of Mary E. Watkins	22.00
30.	Board of Martha Herman.....	25.00
30.	Board of Francis M. Cook	65.00
30.	Board of Herman Buchlers	130.00
30.	Board of C. M. Callahan.....	10.00
30.	Board of Marine Hospital Service.....	1, 247.79
30.	Board of Bryan Hall.....	65.00
30.	Board of Benj. F. Ellis	65.00
30.	Board of William Griffith.....	260.00
30.	Board of W. H. Zepp	91.00
30.	Board of Harriet Le Conte	81.43
30.	Board of Chas. K. Yancey	91.00
30.	Expenses of George F. Morrison	47.12
30.	Board of John A. Cutter.....	54.90
30.	Board of Geo. F. Morrison	250.00
30.	Board of Emily B. Wadsworth.....	30.00
30.	Board of Frank B. Hayes.....	65.00
30.	Board of Sarah C. Borrows	130.00
30.	Board of and special attendance on Edward Burchell.....	165.00
30.	Board of John N. Berryman	65.00
30.	Sale of stock, etc.....	374.37
Total		24 005.93

R E P O R T
OF THE
ARCHITECT OF THE UNITED STATES CAPITOL.

OFFICE OF ARCHITECT UNITED STATES CAPITOL,
Washington, D. C., July 1, 1891.

SIR: I have the honor to present the following report, relative to the progress of the various works under the control of this office during the past fiscal year, together with the statement of the expenditures for the same, as disbursed by your Department, during that period.

THE CAPITOL.

In addition to the necessary repairs, several improvements to the building have been made.

Electric bells have been supplied to all committee and office rooms, which are operated by a device in the Hall of Representatives, within easy reach of the Doorkeeper.

Iron shelving and file cases have been placed in the room recently constructed connecting with the House file room, and a large amount of wooden shelving been put up in cellar storerooms for the use of the Library of Congress. The shelving of the law library has also been considerably extended.

New steam boilers for the Senate wing have been contracted for, and the construction of their foundations and flues have been commenced. The old boilers were sold at public sale, and the amount received for them forwarded to the disbursing agent of your department to be covered into the Treasury.

Considerable work has been done to the steam coils of the heating apparatus, and the whole machinery connected with the same kept in good order.

The electric lights have been extended to many additional rooms in the Capitol, so that now the capacity of the dynamos in use has been reached. Additional dynamos are required, not only to further extend the lighting, but as a reserve in case of accident to the present dynamos. The electric plant is not the property of the United States, but is by law rented from the company owning it.

I again recommend that Congress may provide for the purchase of the electric lighting plants in the two wings of the Capitol, when the Senate plant is changed to a low-tension system, as has been proposed by the Westinghouse Company.

The western elevator in the Senate wing has been rearranged and extended down to the level of the terrace rooms.

The steam pumps and tanks connected with this elevator, have been moved from the Senate basement and placed in a room of the terrace.

Of the series of busts of those who have been Vice-Presidents of the United States, there have been received in addition to those formerly named, those of Tompkins and Hendricks, and that of Vice-President Morton.

THE CAPITOL TERRACES.

The marble and granite work of the terraces has been completed and the office rooms of the same on the Senate side finished, and are now occupied. The rooms on the House side of the terrace are completed with the exception of the painting of the walls, which will be done so that these rooms will be ready for use by the meeting of Congress.

The granite rim of the fountain has been put in place, and considerable work done for the fountain itself. The large marble block, of which the great bowl of the fountain is to be made, and which has occasioned much delay, has at length arrived from the quarry.

Eighteen bronze lamp-posts and eighteen bronze vases have been received and put in place on the terraces.

Three steam-fans have been applied to the terrace storerooms to cause a more constant circulation of air through these rooms.

THE CAPITOL GROUNDS.

The work of taking up and resurfacing the asphalt concrete pavement at the east front of the Capitol, authorized by the act of March 3, 1891, has been commenced, and the main roadway is, under the terms of the contract, to be completed by the 1st day of August next—the contractor being bound to keep this pavement in repair for a period of 5 years from the date of its completion.

The slope at the west of the House terrace has been graded and prepared for planting, and the grounds in general have been kept in good condition.

COURT-HOUSE, WASHINGTON, D. C.

At this building a stairway has been constructed, leading from the basement to the criminal court room, for the convenience of taking prisoners from the basement rooms to the court room.

The marshal's office has been refitted with railing and an additional doorway made. Iron gratings have been supplied to windows and basement corridor.

New water closets have been put into the judge's rooms and many repairs made to the plumbing throughout the building. The roof has been painted and repairs made to the tin work. Considerable work has been done in the way of general repairs.

UNITED STATES BOTANIC GARDEN.

The wooden portion of one of the propagating houses has been torn down and a new frame and rafters, of iron, constructed in its place, for a fern and lily house.

The heating apparatus to five of the houses has been thoroughly repaired, and four plant houses, at the south of Maryland avenue, re-

glazed and painted. The fountain bowl has been prepared for the growth of water lilies.

The flagging at First street and Maryland avenue has been relaid to conform to the requirements of the curve at the corner. Various other repairs have been made, such as painting and glazing sash and carpenters' work to the various buildings at this garden.

SMITHSONIAN INSTITUTION BUILDING.

The work of fireproofing and other repairs at the Smithsonian building, as provided for in the act of August 30, 1890, was not begun last season, as the approval of the Regents—required by the act—could not be obtained until their meeting held January 28, 1891. This approval having been given, the ironwork, slating, and plastering were let after public advertisement and contracts entered into for these several branches of this work.

The old roof and other woodwork of the western room have been taken off, and the iron rafters and ceiling bars, which had to be fitted at the factory, are now being put in place.

Expenditures for work at the Capitol and for general repairs thereof.

Pay rolls, mechanics, laborers, etc	\$23,490.45
Labor, by voucher	588.34
Paints, oils, and glass	962.82
Material for plumbing and steam fitting	1,736.85
Hardware and metals	879.25
Hauling and expressage	65.01
Repairs to clocks in rotunda and Statuary hall	100.00
Forage	111.00
Stationery	85.34
Bricks, lime, and sand	400.36
Grate bars	278.74
Brushes, brooms, sponges, etc	243.32
Lumber	318.26
Material for covering fly doors	33.65
Material for electric bells	471.00
Iron shelves for file cases	510.27
Covering steam pipes	205.88
Nickel plating	98.55
Castings	105.20
Painting coat of arms	140.00
Miscellaneous	148.10
Balance unexpended	27.61
	31,000.00
Appropriated August 30, 1890	31,000.00

WESTERN ELEVATOR, SENATE.

Pay rolls, mechanics, laborers, etc	\$312.00
Labor, by voucher	21.00
Lumber, doors, etc	27.00
Iron tanks	595.00
Otis Brothers, for extending elevator and supplying new gearing	2,545.00
Total	3,500.00
Appropriated August 30, 1890	3,500.00

CAPITOL TERRACES.

Pay rolls, mechanics, laborers, etc	\$11,498.11
Labor, by voucher	549.10
Marble and granite work	11,185.96
Bricks, lime, cement, and gravel	3,259.19
Plumbing and gas fitting material	471.19

Hardware and metals	\$375.85
Lumber	1,792.42
Plastering	1,992.74
Steam heating	1,214.25
Mastic pavement	5,630.33
Paints, oils, and glass	715.21
Freights and hauling	5.08
Metallic ceilings	1,012.80
Disc fans	157.50
Bronze vases and lamp-posts	7,279.50
Wooden tubs for vases	48.00
Asphaltic stone pavement	86.10
Draughtsman	225.00
Advertising	36.89
Balance unexpended	21,079.85
Total	68,615.07

Available July 1, 1890, on account of terraces	\$20,115.07
Appropriated August 30, 1890	27,000.00
Appropriated March 3, 1891 (deficiency)	7,500.00
Appropriated March 3, 1891	14,000.00

68,615.07

IMPROVING CAPITOL GROUNDS.

Pay rolls, mechanics, laborers, etc.	\$17,340.25
Labor by voucher	227.13
Plants	42.95
Gravel, fertilizer soil, seed, etc	538.75
Asphaltic pavement	806.25
Salary and expenses, landscape architect	549.00
Paints and oils	6.50
Brooms, brushes, etc	92.88
Agricultural implements, tools, etc	102.23
Plumbing material	269.35
Ironworker	24.70
Total	20,000.00

Appropriated August 30, 1890	20,000.00
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LIGHTING CAPITOL GROUNDS AND BOTANIC GARDENS.

Gas service	\$18,228.05
Pay rolls for lamplighters, gas fitters, etc.	2,725.50
Lamps and other materials	495.44
Attendance to electric-lighting machine (House wing)	1,467.25
Rent of electric-lighting plant	1,025.80
Balance unexpended	57.96

Total 24,000.00

Appropriated August 30, 1890	24,000.00
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ELECTRIC-LIGHT PLANT, SENATE.

Operating plant	\$1,610.25
Material for electric lighting and for repairs	797.53
Balance unexpended	12,477.03

Total 14,884.81

Available July 1, 1890	14,884.81
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Very respectfully,

EDWARD CLARK,
Architect, United States Capitol.

The SECRETARY OF THE INTERIOR.

REPORT

OF THE

SUPERINTENDENT OF THE HOT SPRINGS RESERVATION.

DEPARTMENT OF THE INTERIOR,
HOT SPRINGS RESERVATION,
OFFICE OF SUPERINTENDENT,
Hot Springs, Ark., August 18, 1891.

SIR: I have the honor to respectfully submit the following report for the fiscal year ending June 30, 1891:

RECEIPTS AND EXPENDITURES.

There are twelve persons and copartnerships owning bath houses or bath-house sites or claims on this reservation who paid water rent for all of the fiscal year ending June 30, 1891. The names of these bath houses, sites, or claims, the number of tubs paid on, and the monthly receipts from each, at the rate of \$2.50 per tub per month, are as follows:

Names.	Tubs.	Amount.
Little Rector	5	\$12.50
New Rector	26	65.00
Big Iron	40	100.00
Superior	16	40.00
Old Hale	21	52.50
Independent	21	52.50
Palace	23	57.50
Horse Shoe	30	75.00
Magnesia	30	75.00
Ozark	22	55.00
Rammelsberg	18	45.00
Lamar	40	100.00
Total	292	730.00

The lessee of what has heretofore been known and designated as the "leased site," originally leased to Mr. J. L. Smithmeyer and by him transferred to Mr. George E. Lemon, paid water rent on 20 tubs from July 1, 1890, to December 31, 1890.

There are eight persons or copartnerships owning bath houses or claims off this reservation who paid water rent for all of said fiscal year, as follows:

Names.	Tubs.	Amount.
Avenue.....	20	\$50. 00
Rockafellow.....	20	50. 00
Central.....	11	27. 50
Hot Springs.....	12	30. 00
French.....	4	10. 00
Sumpter.....	4	10. 00
Eastman.....	40	100. 00
Park.....	40	100. 00
Total.....	151	377. 50

The proprietors of the Alhambra bath house, which is off this reservation, paid water rent on 40 tubs from November 1, 1890, to June 30, 1891,

On October 3, 1890, the Secretary of the Interior decided that the Park Hotel Company, owner of the Park bath house, should pay water rent from December 1, 1889, and directed me to collect the same. Accordingly, on October 7, 1890, a date embraced in the fiscal year ending June 30, 1891, the Park Hotel Company paid water rent on 40 tubs from December 1, 1889, to October 31, 1890. Of this payment the rent from December 1, 1889, to June 30, 1890, accrued in the fiscal year ending June 30, 1890; but as it was received in the fiscal year ending June 30, 1891, it must be covered by this report.

By order of the Secretary of the Interior, I took possession of the Superior bath house on February 15, 1890. I opened the house to the public for bathing by direction of the Department February 21, 1890, and kept it open until October 25, 1890. During that time I received over and above the necessary current expenses of operating the house the net sum of \$3,021.95, water rent for individual bath tubs, and on November 26, 1890, deposited the said sum with the First National Bank of Little Rock, Ark., to be placed to the credit of the Treasurer of the United States on account of the appropriation for the "protection and improvement of the Hot Springs Reservation in Arkansas," as directed by the Secretary of the Interior. Therefore the whole of that sum must be covered by this report.

The New York Hotel Company, of this city, paid water rent for waste water under the impounding reservoir from April 1, 1891, to June 30, 1891, at the rate of \$30 per annum.

Mr. Robert Proctor paid ground rent for the Superior bath house and fixtures from November 1, 1890, to June 30, 1891.

Messrs. S. H. Stitt & Co. paid ground rent for the Arlington Hotel site on this reservation from July 1, 1890, to March 2, 1891 (both dates inclusive), at the rate of \$1,000 per annum, and from March 3 to June 30, 1891 (both dates inclusive), at the rate of \$2,500 per annum.

The total amount expended during the year is \$14,221.33, which amount is covered by vouchers approved by and on file in the Department.

The account, receipts and expenditures, may be stated as follows:

Receipts:	
Water rents	\$18, 119. 45
Ground rents	1, 562. 55
Expenditures:	
Salaries, expenses, repairs, improvements, etc	19, 682. 00
	14, 221. 33
Balance	5, 460. 67

This shows a net income to the Government on account of the Hot Springs Reservation of \$5,460.67 for the fiscal year.

HOT SPRINGS RESERVATION FUND.

The honorable Secretary of the Treasury in a special report informs me that the balance to the credit of the Hot Springs Reservation fund as shown on the books of that Department on June 30, 1891, was \$18,571.53. This fund is under the control of the Secretary of the Interior, to be expended by him for the protection and necessary improvement of the hot water springs, for the improvement and care of the permanent reservation, and for the maintenance of free baths for the invalid poor of the United States, as provided by acts of Congress.

PERMANENT RESERVATION.

By the third section of the act of Congress approved April 20, 1832, it was enacted "that the Hot Springs in Arkansas Territory, together with four sections of land including said springs, as near the center thereof as may be, shall be reserved for the future disposal of the United States, and shall not be entered, located, or appropriated for any other purpose whatever." Under said act the south half of sections 28 and 29 and all of sections 32 and 33, township 2 south, range 19 west of the fifth principal meridian, and the north half of sections 4 and 5, township 3 south, range 19 west, etc., were set apart, designated, and known as the original Hot Springs Reservation, containing 2,529.10 acres. The Hot Springs Commissioners appointed under the acts of Congress approved March 3, 1877, and December 16, 1878, subdivided the original reservation as follows:

	Acres.
Hot Springs Mountain	264.93
North Mountain	224.74
Sugar Loaf Mountain	129.02
West Mountain	21.94
Area of city lots	1,270.10
Area of streets and alleys	358.37
Total area	2,529.10

The four mountains mentioned above, containing an area of 900.63 acres, constitute the "permanent reservation," which is "forever reserved from sale and dedicated to public use as parks." (Act of Congress approved June 16, 1880, section 3.)

The following table shows the number of city lots laid out by the Hot Springs Commission, the number awarded to individuals, the number sold and donated, and the number unsold, the title to which remains in the United States, viz:

Total number of lots laid out	2,019
Awarded to individuals	1,435
	584
Sold and donated	258
Unsold	326

The superintendent is specially charged with the care, protection, and preservation of the permanent reservation. He is instructed that "especial care should be taken to guard against the cutting or removal of trees or shrubs, sod, earth, or rocks, or anything belonging to the reservation, unless such removal is for the purpose of beautifying the reservation or increasing the usefulness of the same, and then only under the specific direction of the superintendent." The reservation

directed to be cared for, protected, and preserved in this manner is a detached mountainous, rocky, rugged, and precipitous woodland, without roads and only a few bridle paths. The exterior or boundary lines aggregate some 10 or 11 miles. It is surrounded by lands belonging to private individuals and a population estimated at 10,000. This care, protection, and preservation is proper and necessary, and should be continued.

Several of the unsold lots have been "squatted" on and improved by private individuals who claim a sort of preëmption right to the same. This may lead to some confusion and embarrassment, and probably hardship and loss, when the lots are sold or otherwise disposed of.

Section 7 of the act of Congress entitled "An act for the establishment of titles in Hot Springs, and for other purposes," approved June 16, 1880, provides that the money arising from the sale of all city lots in this city belonging to the United States shall be held as a special fund for the improvement and care of the permanent reservation at Hot Springs and of the Hot Springs Creek adjacent to and between the permanent reservations, and for the maintenance of free baths for the invalid poor of the United States, as provided by acts of Congress.

Section 7 of the act of Congress entitled "An act to regulate the granting of leases at Hot Springs, Ark., and for other purposes," approved March 3, 1891, is as follows:

SEC. 7. That the Secretary of the Interior may direct the public sale of all unsold Government lots on the Hot Springs Reservation, and not now permanently reserved, at the city of Hot Springs, after having had the same reappraised, and also advertised as now required by law, and no lot shall be sold at less than the appraised price.

I respectfully recommend that a reappraisement and public sale of a portion of the unsold lots be ordered, the sale to take place in this city in the month of March or April, 1892.

And I respectfully submit that lot numbered 53 in block numbered 89 should be made a part of the permanent reservation. Said lot should not be allowed to pass into private hands.

HOT SPRINGS CREEK.

The most important and expensive public improvement made by the Government at this place is the stone culvert erected over Hot Springs Creek. Beginning at the junction of Park and Whittington avenues—whence two short branches reach out to receive and unite the waters drained through the valleys, along which said avenues run—the culvert traverses the reservation front and ends about 160 feet north of Malvern avenue crossing. Its total length, excluding the branches, is 3,500 feet, 17 feet wide, with an average height at the crown of 10 feet. About 1,500 feet of the culvert runs through the reservation front and beneath what I shall designate as Bath-House Park. The remainder, about 2,000 feet, is beneath Central and Reserve avenues and Valley street. The total amount appropriated for this improvement was \$136,744.78.

The culvert is in apparent good condition, and is a sufficient conduit for the drainage of the upper portion of the city and valley and lateral ravines.

As stated above, about 2,000 feet of said culvert is beneath the streets of this city. Section 6 of the act of Congress approved June 16, 1880, cedes the "streets, courts, and alleys, and other thoroughfares of the town of Hot Springs," "to the corporation of the town of Hot Springs for public use."

Table of springs upon the Hot Springs Mountain Reservation.

No.	Temperature.	Elevation + feet.	Character.	Remarks.
1	77	91.4	Constant flow	<i>Datum of levels.</i> —The lowest point on the Hot Springs Reservation, being on the east side, where the Hot Springs railroad enters the same, approximates 500' above the tide-water of Gulf.
2	76	98.7	do	
3	124	98	do	
4	124	98.3	do	
5	80	115.6	do	
6	103	171.6	do	
7	115	172.2	do	
8	121.5	177.5	do	
9	122	179.6	do	
10	121.5	181.2	do	
11	105	120	do	
12	111	117.5	do	
13	135.5	85.2	do	
14	137	84.3	do	
15	134	84.7	do	
16	101	135.8	do	
17		140	Scapaga	
18	93	158.3	Constant	
19	84	159.3	do	
20	83	162.8	do	
21	106	107	do	
22	122	118.2	do	
23	125	123.8	do	
24	113	127.7	do	
25	111	127.7	do	
26	106	127.9	Constant flow	
27	127.5	130.3	do	
28	145	129.4	do	
29	90	140.4	do	
30	134.5	148.3	do	
31	147	133.2	do	
32	124	95.7	do	Under B. I. B. House.
33	140	89.8	do	
34	120	91.8	do	
35	135	91.8	do	
36	110	90.4	do	
37	120	155.5	do	
38	128	90.2	do	
39	125.5	92.2	do	
40	112	92.3	do	
41	157	113.5	do	
42		110.2	do	
43	144	164.4	do	
44		162.8	do	
45	111	171.8	do	
46		109.8	do	Under bath house on hill.
47	144.5	176.5	do	
48	91	178.9	do	
49	131	176.1	do	
50	145	179.6	do	
51	144	182.8	do	
52	142	178.3	do	
53	144.5	186.1	do	
54	146	186.1	do	
55	122	92.7	do	
56	133	95.3	do	
57	128	100.2	do	
58		101.9	do	Inaccessible, near Arsenic Spring.
59	133	102	do	
60	134.5	112.9	do	
61	133	186.1	do	
62	109	186.3	do	
63	83	186.2	do	
64	135	186.6	do	
65	141	186.1	do	
66	87	185.3	do	
67		113	Intermittent	In Arlington yard. Flows after heavy rain; 134°.
68	131	85	Constant	
69	83	89.7	do	
70	89	89.4	do	
71	94	89.3	do	

Giving summary as follows:

Number of springs.....	71
Range of temperature	79°
Lowest temperature	76°
Highest temperature	157°
Range of elevation.....	1027.3
Lowest elevation	847.3
Highest elevation.....	1867.6

ANALYSES OF THE HOT WATER, AND REMARKS.

A quantitative analysis made by Prof. E. H. Larkin, of St. Louis, in 1856, gives $8\frac{1}{2}$ grains of mineral constituents to the gallon. The temperature of the water analyzed was 145 degrees. The following is the analysis made:

	Grains.		Grains.
Silicic acid	24.74	Water	1.72
Sesqui oxide of iron	1.12	Sulphuric acid.....	4.40
Alumina	5.15	Potash	1.46
Lime	28.93	Soda	2.01
Magnesia.....	.73	Iodide and bromide, a trace.....	
Chlorine	.07		
Carbonic acid	21.36	Total	100.00
Organic matter.....	8.31		

The following is from the highly esteemed report of Prof. David D. Owen, the late State geologist:

The following is a quantitative analysis more recently made:

Silicate with base.	Bicarbonate of lime.
Bicarbonate of magnesia.	Alumina with oxide of iron.
Carbonate of soda.	Carbonate of potash.
Sulphate magnesia.	Chloride of magnesia.
Oxide of magnesia.	Sulphate of lime.
Bromide, a trace.	Organic matter, a trace.

The waters are thoroughly impregnated with free carbonic acid.

In June of 1858 I made a partial examination of the waters of the Hot Springs by boiling down $1\frac{1}{2}$ gallons of the water, and found the contents, approximately reduced to 1 gallon as follows.

	Grams.
Organic matter, combined with some moisture	1.16
Silica, with some sulphate of lime not dissolved by water	1.40
Bicarbonate of lime.....	2.04
Bicarbonate of magnesia.....	0.50
Chloride of potassium.....	0.04
Chloride of sodium	0.218
Oxide of iron and a little alumina	0.133
Sulphate of lime dissolved by water.....	0.35
Loss, iodine (?) bromine (?)	0.053

In the winter of the same year Dr. Elderhorst, then chemical assistant to the Survey was instructed to collect a sufficient number of gallons of water to make an accurate quantitative analysis in my laboratory.

Dr. William Elderhorst's analysis of 100 grams of the so-called "Arsenic Spring" is here inserted.

	Grams.		Grams.
Lime	0.059024	Chlorine	0.002275
Silicates	0.045600	Sapo.....	0.004650
Sulphuric acid	0.019400	Potash	0.001560
Magnesia	0.007629		

Professor Owen, after quoting from Dr. William Elderhost's analysis of the waters, proceeds to give his ideas of their medicinal effects and the causes that have operated to impart to them such extraordinary heat:

In many forms of chronic diseases especially its effects are truly astonishing. The copious diaphoresis which the hot bath establishes opens in itself a main channel for the expulsion of principles injurious to health, made manifest by its peculiar odor. A similar effect in a diminished degree is also effected by drinking the hot water—a common, indeed almost universal, practice among invalids at the Hot Springs.

The impression produced by the hot douche as above described is indeed powerful, arousing into action sluggish and torpid secretions; the languid circulation is thus purified of morbid matters, and thereby renewed vigor and healthful action are given both to the absorbents, lymphatics, and to the excretory apparatus, a combined effect which no medicine is capable of accomplishing.

The large quantity of free carbonic acid which the water contains, and which rises in volumes through the water at the fountain of many of the springs, has undoubtedly an exhilarating effect on the system, and it is no doubt from the water of the Hot Springs coming to the surface charged with this gas that invalids are enabled to drink it freely at a temperature at which ordinary tepid water, from which all the gas has been expelled by ebullition, would act as an emetic.

The small quantities of chlorides and sulphates of magnesia may have a slight medicinal effect, but there are no more of these salts present than are to be found in many springs and well waters employed for domestic purposes.

Various have been the speculations with regard to the cause of the high temperature of these waters, and my opinion has been repeatedly asked on this subject.

I can not, for several reasons, subscribe to the views advanced by some that the elevation of temperature is caused by the water coming in contact with caustic lime in the interior of the earth. Lime has so great an affinity for carbonic acid that it can not remain for any great time in an uncombined caustic condition, and therefore is seldom found in that state either on the surface or in the bowels of the earth. And if it did, it would long since have been reduced to the state of hydrate, if not to the state of carbonate, by constant contact with the copious flow of water charged with carbonic acid, when it would no longer give off heat by the chemical action produced during its combination with water.

Much less can I give assent to the extraordinary idea that the high temperature of these waters is due to latent heat given off from the water in the act of depositing the tufa that now coats the hillsides from which the springs issue, and which was originally held in solution, since we have no instance of any appreciable heat being given off by simple precipitation or settling out of the carbonates of lime, as it loses the carbonic acid which held it in solution; besides, this is so slow a process, that if any heat was given off it would be so little at a time as to be insensible to the feelings.

On the contrary, I attribute the cause to the *internal heat of the earth*. I do not mean to say that the waters come in actual contact with fire, but rather that the waters are completely permeated with highly heated vapors and gases which emanate from sources deeper seated than the water itself. The whole geological structure of the country, and that of the Hot Springs Ridge in particular, from which the water issues, justifies the assumption.

The geological survey of this State undertook the chemical analyses and made temperature determinations of the principal hot water springs at this place in the months of October and November, 1890. I am indebted to John C. Branner, PH. D., State geologist of the State of Arkansas, for the very interesting results of that important work, and I desire to express my deep sense of obligation to Dr. Branner for his special kindness and courtesy.

I have the honor and pleasure to submit the special report of Dr. Branner, as follows:

OFFICE OF THE GEOLOGICAL SURVEY OF ARKANSAS,
Little Rock, Ark., July 14, 1891.

Hon. FRANK M. THOMPSON,

Superintendent of the Reservation, Hot Springs, Ark.:

SIR: In compliance with your request for the results of the analyses made by the geological survey of Arkansas of the waters of the hot springs, I beg to give you the following general results:

This survey undertook the chemical analyses of the principal hot springs in October and November, 1890. Analyses were made of the springs, popularly known as "Egg," "Rector," "Big Iron," "Ral," "Alum," "Old Hale," and "Magnesia,"—the principal ones in use. For the purpose of determining the effect of piping the hot waters one analysis was made of the water used at the Rockafellow bath house which receives its supply from the Egg Spring about 1,800 feet away. The sample was drawn

from the hydrant in bath room No. 1. With this exception, whenever it was possible, the water used in those analyses were collected directly from the springs. A comparison of the analyses of these waters show that there is no perceptible loss of mineral contents in piping the water, though the temperature is lowered somewhat. In the case of the Ral the spring itself was not accessible and the water was therefore collected as near its source as possible, which was at the end of the iron pipe about 60 feet in length, through which the water enters the distributing tank. The water of the Magnesia Spring was collected from the stream flowing through the brick discharge pipe beneath the Magnesia bath house. The stream is shallow and the water had to be filtered before it could be used.

In each case a little more than 8 gallons of the water were concentrated by evaporation to about half a pint. This part of the work was done in a temporary laboratory, a room for which was kindly furnished the survey by Mr. Albert Gaines in the New Rector bath house adjoining the Arlington Hotel. The samples were collected by the survey and the evaporation made between October 24 and November 10, 1890. The work was intrusted to Dr. R. N. Brackett, the chemist of the survey, and the analyses were completed by him at the survey's laboratory at Little Rock. The temperature determinations were made nearly every day, from October 24 to November 10. at the points from which the water was taken. The thermometer used in taking temperatures was afterward sent to the office of the Superintendent of the U. S. Coast Survey at Washington where its graduation was carefully corrected, and the corrections applied to the recorded temperatures. Below I give separately the analyses of waters from each individual spring, while in the table the results are grouped together for more ready comparison.

Egg Spring.

HYPOTHETICAL COMBINATION.

[Amount of water used for analysis, 8.30 United States gallons, 31.41 liters.]

Constituents.	Grains per United States gallon.	Per cent. of total solid material in solu- tion.
Chloride of sodium (NaCl)	0.25	2.10
Sulphate of potash (K ₂ SO ₄)	0.25	2.06
Sulphate of soda (Na ₂ SO ₄)	0.36	3.00
Sulphate of iron (FeSO ₄)	0.06	0.51
Carbonate of soda (NaCO ₃)	0.13	1.07
Carbonate of magnesia (MgCO ₃)	1.17	9.67
Carbonate of lime (CaCO ₃)	2.65	59.73
Silica (SiO ₂)	2.65	21.86
	12.15	100.00
Total solid material in solution dried at 110° to 115° C. (230° to 239° F.)	13.11	.....
Carbonic acid (CO ₂), free and for bicarbonates	4.17	.....

Temperature (corrected) 144.68° F. (62.6° C.).

FOUND.

Silica (SiO ₂)	2.65	21.86
Sulphuric acid (SO ₄)	0.42	3.49
Carbonic acid (CO ₃)	5.26	43.35
Chlorine (Cl)	0.15	1.27
Bromine; iodine (Br; I)	Traces.	Traces.
Iron (Fe)	0.02	0.19
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.90	23.90
Magnesium (Mg)	0.33	2.76
Potassium (K)	0.11	0.92
Sodium (Na)	0.27	2.26
Lithium (Li)	Trace.	Trace.
	12.15	100.00

Rector Spring.

HYPOTHETICAL COMBINATION.

[Amount of water used for analysis is 8.06 United States gallons (30.51 liters).]

Constituents.	Grains per United States gallon.	Per cent of total solid material in solu- tion.
Chloride of sodium (NaCl)	0.27	2.29
Sulphate of potash (K_2SO_4)	0.22	1.89
Sulphate of soda (Na_2SO_4)	0.45	3.80
Sulphate of iron ($FeSO_4$)	0.06	0.53
Carbonate of soda (Na_2CO_3)	0.01	0.09
Carbonate of magnesia ($MgCO_3$)	1.08	9.08
Carbonate of lime ($CaCO_3$)	7.28	60.69
Silica (SiO_2)	2.59	21.63
Total solid material in solution, dried at 110 to 115° C. (230 to 239° F.)	11.96	100.00
Carbonic acid (CO_2), free and for bicarbonates	12.07	
	4.07	

Temperature (corrected), 139.28° F. (59.6° C.)

FOUND.

Silica (SiO_2)	2.59	21.63
Sulphuric acid (SO_4)	0.47	3.95
Carbonic acid (CO_3)	5.15	42.94
Chlorine (Cl)	0.16	1.39
Bromine; iodine (Br; I)	Traces.	Traces.
Iron (Fe)	0.02	0.20
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.91	24.28
Magnesium (Mg)	0.31	2.59
Potassium (K)	0.10	0.85
Sodium (Na)	0.26	2.17
Lithium (Li)	Trace.	Trace.
	11.99	100.00

Big Iron Spring.

HYPOTHETICAL COMBINATION.

[Amount of water used for analysis is 8.24 United States gallons (31.19 liters).]

Chloride of sodium (NaCl)	0.28	2.16
Sulphate of potash (K_2SO_4)	0.34	2.60
Sulphate of soda (Na_2SO_4)	0.37	2.86
Sulphate of iron ($FeSO_4$)	0.07	0.58
Carbonate of soda (Na_2CO_3)	0.03	0.24
Carbonate of magnesia ($MgCO_3$)	1.21	9.26
Carbonate of lime ($CaCO_3$)	8.13	62.11
Silica (SiO_2)	2.64	20.19
Total solid material in solution dried at 110 to 115° C. (230 to 239° F.)	13.10	100.00
Carbonic acid (CO_2) free and for bicarbonates	12.94	
	3.62	

Temperature (corrected), 146.48° F. (63.6° C.).

FOUND.

Silica (SiO_2)	2.64	20.19
Sulphuric acid (SO_4)	0.48	3.73
Carbonic acid (CO_3)	6.16	47.06
Chlorine (Cl)	0.17	1.31
Bromine; iodine (Br; I)	Traces.	Traces.
Iron (Fe)	0.02	0.22
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.85	21.79
Magnesium (Mg)	0.34	2.65
Potassium (K)	0.15	1.17
Sodium (Na)	0.24	1.88
Lithium (Li)	Trace.	Trace.
	13.10	100.00

Ral Spring.

HYPOTHETICAL COMBINATION.

[Amount of water used for analysis, 8.22 United States gallons (31.15 liters).]

Constituents.	Grains per United States gallon.	Per cent of total solid material in solu- tion.
Chloride of sodium (NaCl).....	0.29	2.57
Sulphate of potash (K ₂ SO ₄).....	0.25	2.25
Sulphate of soda (Na ₂ SO ₄).....	0.43	3.82
Sulphate of iron (FeSO ₄).....	0.02	0.22
Carbonate of soda (Na ₂ CO ₃).....	0.02	0.22
Carbonate of magnesia (MgCO ₃).....	1.12	9.78
Carbonate of lime (CaCO ₃).....	6.78	59.07
Silica (SiO ₂).....	2.53	22.07
Total solid material in solution, dried at 110 to 115° C. (230 to 239° F.)	11.44	100.00
Carbonic acid (CO ₂), free and for bicarbonates.....	12.82	
	4.57	

Temperature (corrected), 139.28° F. (59.6° C.).

FOUND.

Silica (SiO ₂).....	2.53	22.07
Sulphuric acid (SO ₄).....	0.45	3.96
Carbonic acid (CO ₃).....	4.88	42.55
Chlorine (Cl).....	0.17	1.57
Bromine; iodine (Br; I).....	Traces.	Traces.
Iron (Fe).....	0.009	0.08
Aluminum; manganese (Al; Mn).....	Traces.	Traces.
Calcium (Ca).....	2.71	23.63
Magnesium (Mg).....	0.32	2.79
Potassium (K).....	0.11	1.01
Sodium (Na).....	0.26	2.34
Lithium (Li).....	Trace.	Trace.
	11.44	100.00

Alum Spring.

HYPOTHETICAL COMBINATION.

[Amount of water used for analysis, 8.25 United States gallons (31.26 liters).]

Chloride of sodium (NaCl).....	0.31	2.80
Sulphate of potash (K ₂ SO ₄).....	0.24	2.19
Sulphate of soda (Na ₂ SO ₄).....	0.43	3.84
Sulphate of iron (FeSO ₄).....	0.02	0.24
Carbonate of soda (Na ₂ CO ₃).....	0.01	0.12
Carbonate of magnesia (MgCO ₃).....	1.07	9.56
Carbonate of lime (CaCO ₃).....	6.66	59.28
Silica (SiO ₂).....	2.46	21.97
Total solid material in solution dried at 110 to 115° C. (230 to 239° F.)	11.23	100.00
Carbonic acid (CO ₂), free and for bicarbonates.....	13.11	.....
	5.12	.....

Temperature (corrected), 115.88° F. (46.6° C.).

FOUND.

Constituents.	Grains per United States gallon.	Per cent of total solid material in solu- tion.
Silica (SiO ₂)	2.46	21.97
Sulphuric acid (SO ₄)	0.44	3.95
Phosphoric acid (P ₂ O ₅)	Trace.	Trace.
Carbonic acid (CO ₃)	4.77	42.46
Chlorine (Cl)	0.19	1.70
Bromine; iodine (Br; I)	Traces.	Trace.
Iron (Fe)	0.009	0.09
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.66	23.72
Magnesium (Mg)	0.30	2.73
Potassium (K)	0.11	0.99
Sodium (Na)	0.26	2.39
Lithium (Li)	Trace.	Trace.
	11.199	100.00

Old Hale Spring.

HYPOTHETICAL COMBINATION.

[Amount of water used for analysis is 8.12 United States gallons (30.75 liters).]

Chloride of sodium (NaCl)	6.24	2.08
Sulphate of potash (K ₂ SO ₄)	0.19	1.66
Sulphate of soda (Na ₂ SO ₄)	0.42	3.61
Sulphate of iron (FeSO ₄)	0.07	0.62
Carbonate of soda (Na ₂ CO ₃)	0.05	0.50
Carbonate of magnesia (MgCO ₃)	1.03	8.81
Carbonate of lime (CaCO ₃)	7.14	60.70
Silica (SiO ₂)	2.59	22.02
	11.76	100.00
Total solid material in solution dried at 110 to 115° C. (230 to 239° F.)	13.46	.....
Carbonic acid (CO ₂), free and for bicarbonates	5.66	.....

Temperature (corrected), 142.9° F. (61.6° C.).

FOUND.

Silica (SiO ₂)	2.59	22.02
Sulphuric acid (SO ₄)	0.44	3.74
Carbonic acid (CO ₃)	5.05	42.99
Chlorine (Cl)	0.14	1.26
Bromine; iodine (Br; I)	Traces.	Traces.
Iron (Fe)	0.02	0.23
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.85	24.28
Magnesium (Mg)	0.29	2.52
Potassium (K)	0.08	0.75
Sodium (Na)	0.25	2.21
Lithium (Li)	Trace.	Trace.
	11.76	100.00

Magnesia Springs.

HYPOTHETICAL COMBINATION.

[Amount of water for analysis 10.92 United States gallons (41.36 liters).]

Constituents.	Grains per United States gallon.	Per cent. of total solid material in solu- tion.
Chloride of sodium (NaCl)	0.25	2.19
Sulphate of potash (K ₂ SO ₄)	0.27	2.33
Sulphate of soda (Na ₂ SO ₄)	0.40	3.48
Sulphate of iron (FeSO ₄)	0.08	0.72
Carbonate of soda (Na ₂ CO ₃)	0.05	0.49
Carbonate of magnesia (MgCO ₃)	1.19	10.19
Carbonate of lime (CaCO ₃)	6.85	58.30
Silica (SiO ₂)	2.62	22.30
Total solid material in solution dried at 110 to 115° C. (220 to 239° F.)	11.75	100.00
Carbonic acid (CO ₂), free and for bicarbonates	13.06	.....
	5.76	.....

Temperature (corrected) 124.88° F. (51.6° C.).

FOUND.

Silica (SiO ₂)	2.62	22.30
Sulphuric acid (SO ₄)	0.48	4.10
Carbonic acid (CO ₂)	5.00	42.55
Chlorine (Cl)	0.15	1.33
Bromine; iodine (Br.; I)	Traces.	Traces.
Iron (Fe)	0.03	0.26
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.74	23.34
Magnesium (Mg)	0.34	2.91
Potassium (K)	0.12	1.00
Sodium (Na)	0.25	2.21
Lithium (Li)	Trace.	Trace.
	11.75	100.00

Rockafellow Bathhouse.

HYPOTHETICAL COMBINATION.

[Water said to be supplied from the Egg Spring. Amount of water used for analysis, 8.12 United States gallons (30.76 liters).]

Chloride of sodium (NaCl)	0.28	2.42
Sulphate of potash (K ₂ SO ₄)	0.23	1.98
Sulphate of soda (Na ₂ SO ₄)	0.41	3.61
Sulphate of iron (FeSO ₄)	0.06	0.53
Carbonate of soda (Na ₂ CO ₃)	0.01	0.09
Carbonate of magnesia (MgCO ₃)	1.09	9.39
Carbonate of lime (CaCO ₃)	6.97	59.95
Silica (SiO ₂)	2.56	22.03
Total solid material in solution dried at 110 to 115° C. (230 to 239° F.)	11.62	100.00
Carbonic acid (CO ₂), free and for bicarbonates	13.70	.....
	3.81	.....

Temperature (corrected), 134.78° F. (57.1° C.).

FOUND.

Constituents.	Grains per United States gallon.	Per cent. of total solid material in solu- tion.
Silica (SiO ₂)	2.56	22.03
Sulphuric acid (SO ₄)	0.44	3.87
Phosphoric acid (P ₂ O ₅)	(*)	(*)
Carbonic acid (CO ₂)	4.96	42.73
Chlorine (Cl)	0.17	1.46
Bromine; iodine (Br; I)	Traces.	Traces.
Iron (Fe)	0.02	0.20
Aluminum; manganese (Al; Mn)	Traces.	Traces.
Calcium (Ca)	2.78	23.98
Magnesium (Mg)	0.31	2.68
Potassium (K)	0.10	0.89
Sodium (Na)	0.25	2.16
Lithium (Li)	Trace.	Trace.
	11.62	100.00

* Faint trace.

Average of seven springs.

Chloride of sodium (NaCl)	0.27	2.31
Sulphate of potash (K ₂ SO ₄)	0.25	2.14
Sulphate of Soda (Na ₂ SO ₄)	0.41	3.49
Sulphate of iron (FeSO ₄)	0.05	0.49
Carbonate of Soda (NaCO ₃)	0.04	0.39
Carbonate of magnesia (MgCO ₃)	1.13	9.48
Carbonate of lime (CaCO ₃)	7.15	59.98
Silica (SiO ₂)	2.58	21.72
	11.92	100.00
Total solid material in solution dried at 110 to 115° C. (230 to 239° F.)	13.03	
Carbonic acid (CO ₂), free and for bicarbonates	4.60	

Average temperature, 136.02° F.

Résumé of analyses of the waters of the hot springs of Arkansas.

Constituents (hypothetical combination).	Rockafellow bath house.	Egg spring.	Rector spring.	Big Iron spring.	Ral spring.	Alum spring.	Old Hale spring.	Magnesia spring.	Average of seven springs.
Chloride of sodium (NaCl)	0.28	0.25	0.27	0.28	0.29	0.31	0.24	0.25	0.27
Sulphate of potash (K ₂ SO ₄)	0.23	0.25	0.22	0.34	0.25	0.24	0.19	0.27	0.25
Sulphate of soda (Na ₂ SO ₄)	0.41	0.36	0.45	0.37	0.43	0.43	0.42	0.40	0.41
Sulphate of iron (FeSO ₄)	0.06	0.06	0.06	0.07	0.02	0.02	0.07	0.08	0.05
Carbonate of soda (Na ₂ CO ₃)	0.01	0.13	0.01	0.03	0.02	0.01	0.05	0.05	0.04
Carbonate of magnesia (MgCO ₃)	1.09	1.17	1.08	1.21	1.12	1.07	1.03	1.19	1.13
Carbonate of lime (CaCO ₃)	6.97	7.25	7.28	8.13	6.78	6.66	7.14	6.85	7.15
Silica (SiO ₂)	2.56	2.65	2.59	2.64	2.53	2.46	2.59	2.62	2.58
	11.62	12.15	11.99	13.10	11.48	11.23	11.76	11.75	11.92
Total solid material in solution, dried at 110° to 115° C. (230° to 239° F.)	13.70	13.11	12.07	12.94	12.82	13.11	13.46	13.06	12.94
Carbonic acid (CO ₂), free and for bicarbonates	3.81	4.17	4.07	3.62	4.57	5.12	5.66	5.76	4.71
Temperatures in degrees F.	134.78	144.68	139.28	146.48	139.28	115.88	142.90	124.88	136.19

These results show that there is no great difference in the chemical composition of the waters of the several springs. On an average the seven spring waters contain 12.94 grains of material in solution to the gallon. Of this material nearly 60 per cent. is carbonate of lime, over 21 per cent. is silica, 9 per cent. is carbonate of magnesia, while the remainder is chiefly chloride of sodium (common salt), sulphate of soda (Glauber's salt), and sulphate of potash.

To give some idea of the comparative amount of solids in solution in the hot springs waters the total solids of several of the well-known waters of the State are given below.

The following list of waters analyzed by this survey shows the comparative amounts of material in solution :

Solids in solution in Arkansas springs.

Spring.	Grains to the United States gallon.
Happy Hollow spring, Hot Springs	1.65
Crescent spring, Eureka Springs.....	5.36
Darling spring, Mount Nebo.....	7.36
Armstrong spring.....	10.84
Hot Springs (average of 7).....	12.94
Mammoth spring.....	14.60
Blanco spring, Garland Co	16.23
Mountain Valley, Garland Co	16.53
Searcy sulphur spring, Searcy	17.81
Griffin Springs, White Co.....	25.12
Ellington gas well, Magazine, Logan Co	31.87
Potash sulphur spring	51.89
Lithia spring, near Hope	63.02
National spring, National, Logan Co.....	144.50
Howard's mineral well, Sharps Cross Roads, Independence Co.....	263.90
Arkansas River water at Little Rock (filtered).....	7 to over 60

I have the honor to remain, very respectfully, yours,

J. C. BRANNER,
State Geologist.

PRESERVATION OF THE SPRINGS.

Under this head in my annual report for the fiscal year ending June 30, 1890 [page 12], I had the honor to submit remarks to which I respectfully invite attention.

Another year's experience and observation of the situation here strengthens and confirms the correctness of the views therein expressed. I wish to add, however, that there are one or more hot-water springs under the Palace and Ozark bath houses. And the early maps show two hot-water springs on and near the Superior bath-house site. It appears that these springs were overlooked in my last report.

It is urged that the houses over and near the springs should be allowed to remain, in order that they may be as near the fountain head of the hot water as possible. To those acquainted with the situation, the disingenuousness and fallacy of that argument is obvious and ludicrous. The Ozark bath house is over one or two hot-water springs, but it does not use one drop of water from them. It pipes its main supply of hot water for the tub baths from the southeast corner of the "New Rector" bath house, a distance of about 900 feet. From the southeast corner of the "New Rector" to the west side of Central avenue, where the ground is owned by private individuals, is about 250 feet. Now, if the Ozark bath house had been erected on a private lot on the west side of Central avenue and about opposite the "New Rector," it would have been some 600 or 700 feet nearer the "fountain head" than it is at the present location on the permanent reservation. And the same might be said of the Independent, Palace, Horseshoe, and Magnesia bath houses, which have hot-water springs under them, with the explanation that they are somewhat nearer the "fountain head" than the Ozark. The Lamar bath house is about 1,100 feet from the source of the hot-water supply. The bath houses south of the Old Hale site do not use one drop of the water from the hot springs under them.

BATH HOUSES ON THE PERMANENT RESERVATION.

Little Rector.—This is nothing but a claim. The supposed "site" is beneath the Arlington Hotel and on the one acre of ground leased to Messrs. S. H. Stitt & Co. Water rent is paid on 5 tubs. There never was any lease given for it, and I do not know by what right or authority the pretended claim was set up.

New Rector.—This house is in poor condition. The foundation is in a decaying condition, and the floor is bad. The roof over the bathing department leaks, and is a source of annoyance and inconvenience to bathers. The furniture and carpets are old and indifferent. Lease expired December 15, 1888.

Big Iron.—Demolished and removed from the reservation. Lease expired December 15, 1888.

Superior.—A brick building in good condition. Lease expired December 31, 1888.

Old Hale.—Demolished and removed from the reservation. The lease expired December 15, 1888.

Smithmeyer site.—No house. Paid water rent on 20 tubs up to December 31, 1890. Lease expired December 17, 1890. Right of possession declared forfeited June 12, 1891.

Independent.—Old and worthless. Unfit for use as a public bath house. Should be condemned and ordered removed on reasonable notice. The lease expired December 15, 1888.

Palace.—This house has been repaired since my last report. New sills, floor joists, floor, and cover; also painted. It is now in very good condition. The furnishings are worn and indifferent. The lease expired December 15, 1888.

Horseshoe.—Frame building, large and roomy, in fair condition, and indifferently furnished. Was painted last fall. The lease expired June 11, 1888.

Magnesia.—The same as the Horseshoe. Lease expired May 31, 1888.

Ozark.—An old house with a new coat of fancy paint on the outside. Roof leaks. Poor floor. Sorry, scant furnishings. I do not regard it in suitable condition for a public bath house. The lease expired December 15, 1888.

Rammelsberg.—An old brick building, in fair condition. The furnishings and furniture are cheap, worn, and scant. The lease expired December 15, 1888.

The supply of hot water was shut off from this house on July 1, 1891, for noncompliance with the rules and regulations of the Department, and the house closed subject to the orders of the Secretary of the Interior.

Lamar.—The same as the Horseshoe. Lease expired July 31, 1888.

BATH HOUSES OFF THE PERMANENT RESERVATION.

Avenue.—This house is comfortable. The building is in very good condition. The furniture and furnishings are indifferent. No lease.

Rockafellow.—The building is rather small and crowded. The "waiting" rooms are small and insufficient. The furniture and furnishings are scant and indifferent. It needs overhauling and renovating. Has been painted since my last report. No lease.

Central.—This building is old, dilapidated, and unfit for a public bath house. The furnishings are very scant and poor. No lease.

LESSEES OFF THE PERMANENT RESERVATION.

The following table shows the names of the lessees or claimants of the bath houses or claims off the permanent reservation and the respective interests of each :

Bath houses.	Lessees and interests.										
	Avenue Hotel Co.*	C. N. Rockafellow.	Union Hotel Co.*	M. J. Smith.	C. H. V. Smith.	John J. Sumpter.	W. W. Eastman.	Park Hotel Co.*	E. H. Bancroft.	A. M. Bancroft.	C. D. Bancroft.
Avenue.....	1										
Rockafellow.....		1									
Central.....			1								
Hot Springs.....				$\frac{1}{3}$	$\frac{1}{3}$						
French.....				$\frac{1}{3}$	$\frac{1}{3}$						
Sumpter.....						1					
Eastman.....							1				
Park.....								1			
Alhambra.....									$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

* Corporation organized under the laws of the State of Arkansas.

ARLINGTON HOTEL.

The Arlington Hotel is on the permanent reservation and pays an annual ground rent of \$2,500. The law authorizing this use of a portion of the permanent reservation provides that "not exceeding 1 acre" shall be and constitute the Arlington Hotel site. But the lessees use and occupy more than 1 acre of ground. The site as now laid out and established is in an unusually ugly and zigzag shape. The rear walls of the building are on the line of the site, and a person can not step out of the hotel in the rear without stepping on the grounds of the reservation.

The building is in fair condition. The hotel, as such, is well and neatly kept. The accommodations appear to be satisfactory to the guests of the house. The lawns and grounds are kept clean and in a good sanitary condition, and I believe that the management are endeavoring to comply with the terms and conditions of the lease.

The names and interests of the lessees are as follows: S. H. Stitt, one-third; S. W. Fordyce, one-third; A. B. Gaines, one-sixth; Logan H. Roots, one-sixth. It appears that Mr. Roots bought from Mr. Gaines an undivided one-sixth interest in said hotel on October 29, 1885, but his name does not appear in the lease issued by the Department on September 9, 1889.

THE SMITHMEYER SITE.

By direction of the Department I took possession of the Smithmeyer bath house site on the permanent reservation, on June 12, 1891, for and on behalf of the United States, and notified Mr. George E. Lemon, Washington, D. C., who held said site by assignment from Mr. J. L. Smithmeyer. Although this site has been under lease since December 12, 1883, no bath house has been erected on it. The assignee of the lease has not paid any water rent on this hot-water privilege since December 31, 1890.

THE FREE BATH HOUSE.

This institution is operated and maintained by the Government. The law requires that the Superintendent shall provide a sufficient number of free baths for the use of the indigent, and the expense thereof shall be defrayed out of the funds received for ground and water rents. It is very popular and is becoming more so each year. During the year just closed the average number of free baths given each day, Sundays excepted, was about 600. This makes the monthly total about 15,600, and 187,200 for the year.

The new brick bath house erected on the site of the old wooden structure was accepted and received from the contractor on February 18, 1891, and opened to the public for free baths on the 23d day of the same month. The size of the new building is about 45 by 60 feet. The main portion, 45 by 35 feet, contains the office and waiting rooms, dressing rooms, etc., in the first story, while the second story is designed for the use of the manager. At the rear of the dressing rooms is located the bathing department, consisting of a long, low, one-story addition, 20 by 53 feet, containing two rooms, with a bathing pool in each. The men's pool-room is much the larger of the two, for the reason that about four times as many men bathe here as do women. The dimensions of the pools are: Men's pool, 26 feet long by 12 feet 6 inches wide; women's pool, 15 by 12 feet 6 inches. Each of these pools is divided into two pools by a brick partition wall carried up flush with top of pools, permitting one section to be emptied and refilled while the other section is in use. Both pools are of solid masonry, laid in cement mortar and plastered with the same, and the floors are well and neatly plastered upon a solid rock bed.

The platform or sidewalk at the side and ends of the pools is built up of solid masonry, covered with concrete, and the surface graded away from the water toward a gutter next the wall, where a drain pipe carries off the water that drips from the person of the bather. The interior walls and ceilings are plastered, and the rooms neatly wainscoted and finished with native yellow pine. The exterior presents a massive and dignified appearance. The basement walls are of stone, with large blocks of regular courses of range work, neatly pointed up. The water table and trimmings, sills, and window caps are of Kentucky limestone. The walls are built of hard-burned brick, faced on exterior surface with stock brick neatly pointed. The cornice is of galvanized iron, and the house is covered with stamped metal shingles. The building is heated by the hot-water system by means of apparatus placed in the cellar.

This building affords accommodations and facilities vastly superior to anything heretofore enjoyed by those who from choice or necessity bathe at this house. It is the subject of much favorable comment by citizens and visitors. The benevolent designs of the Department in behalf of the poor invalids who visit here and from necessity bathe at this house is recognized as a prominent and praiseworthy feature of administration and control, and hundreds of humble hearts swell with honest patriotism and thankfulness at this manifestation of the nation's greatness and munificence.

IMPOUNDING RESERVOIR AND PUMPING STATION.

By an act of Congress entitled "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1889, and for other purposes," approved October 2, 1888, the

sum of \$31,000 was appropriated "for providing a system of reservoirs, pumps, and piping; and for other purposes necessary to the collection and economical distribution of the hot water." In the month of April, 1889, Passed Assistant Engineer G. W. Baird, U. S. Navy, was detailed, at the request of the Department, to prepare a plan and specifications for the work contemplated in said act. In the spring of 1889 Mr. Baird visited this city for the purpose of making the necessary surveys, etc., to enable him to prepare the required plan and specifications. He arrived here and departed before I entered upon duty here in June, 1889. The plan and specifications were prepared in Washington, D. C. The contract for the necessary materials and work was awarded by the Department in the summer of 1890. Mr. A. S. Greene, chief engineer, U. S. Navy, was detailed as superintendent of construction. He had the entire local control and direction of the work. I assume that the work was performed and completed according to the contract. On June 8, 1891, I was directed by the Department to take possession of said works and improvement, and on the following day I complied with said order. The pump has not been operated while in my possession. The bath houses are not connected with it.

About the time the reservoir and pump house were completed and the expensive machinery put in place, Congress passed a law (approved March 3, 1891), the sixth section of which is as follows:

SEC. 6. That the authority heretofore conferred upon the Secretary of the Interior to collect the hot water upon said reservation shall be so construed as to require water to be collected only where such collection is necessary for its proper distribution, and not where by gravity the same can be properly utilized.

Although Congress, in 1888, made the necessary appropriation and authorized the construction of the reservoir and pumping station, the above section of law practically prohibits the operation of the plant.

In making the excavation for the reservoir on the site designated on the plans and in the specifications, it was necessary for the contractors to go in the side of the mountain in the rear. The result is that a raw, unsightly, and unprotected embankment of earth, slate, and rock about 100 feet long and from about 4 to about 20 feet high is standing in the rear of and near the reservoir. Whenever there is any considerable rainfall the surface water from the side of the mountain above that point comes rushing down to and pours over the embankment, and, together with the earth and stones washed out, falls on the top of the reservoir below.

OFFICE BUILDING AND GROUNDS.

On December 30, 1890, the Department entered into a contract with Mr. W. Z. Partello, Washington, D. C., for the construction of an office and residence building on this reservation, which building was to be completed within 4 months from that date. Although Mr. Partello commenced the work of construction on January 19, 1891, it will probably require until November 1, 1891, to complete the building.

The site of said new buildings is about 55 feet from Fountain street and east and just outside of the inclosure of the old office building, and a large proportion of the ground surrounding it has never been inclosed, occupied, or improved. I therefore respectfully recommend that the matter of inclosing and improving any plot of ground which may be designated, set apart, and appropriated to said building receive early consideration.

I had the honor to respectfully call attention to this subject by letter dated March 12, 1891.

BATH HOUSE PARK.

This small park is immediately in front of the bath houses on the permanent reservation and on Central avenue, the main thoroughfare of this city. It is fairly well sodded with clover and grasses, maturing into a beautiful and inviting lawn. The many young shade trees on it are in good condition, and in a very few years will afford ample shade.

In making the excavation for the impounding reservoir a large body of water suitable for irrigating purposes was developed. This water was walled out in the construction of the reservoir and left to rise and stand on the outside of the side walls of the same. A small brick well was built on the outside of the wall of the reservoir down to this waste water, to permit it being pumped out. Upon my application, the Department authorized me to utilize this water to irrigate Bath House Park. The plant for handling the water for that purpose has been put in, and I am pleased to report that it is a complete success. It affords an abundance of pure clear water at a minimum cost. By carrying the distributing pipe on around on the north side of the Arlington Hotel site to the yard and grounds surrounding the office and residence of the superintendent of the reservation an ample supply for irrigating the same can be obtained.

I respectfully recommend that the present walk through the center of the park be abandoned, that the surface of the ground be brought to the established grade of Central avenue, that suitable brick or concrete walks be put down from the main entrance to each bath house out to the east side of said avenue, and that the grounds between said walks be subdivided into lawns and grass plots and meandering walks.

I also respectfully recommend that an appropriation be made for the purpose of putting down a concrete sidewalk on the south side of Fountain street, the east side of Central avenue, and the north side of Reserve avenue, adjoining the reservation front, from the northeast corner of the yard of the superintendent's office south and east to the southwest corner of the grounds set apart for the use of the Army and Navy General Hospital on Reserve avenue. The distance is about 2,500 feet. The total cost is estimated at \$7,000. The ordinances of this city require property owners to bear the expense of putting down sidewalks in front of their property.

This small park is in the heart of the city, is accessible to visitors and invalids, and should receive special care and attention.

MOUNTAIN PARKS.

Congress has reserved from sale and dedicated to public use as parks the mountain areas of this reservation. Hence we have Hot Springs Mountain Park, North Mountain Park, Sugar Loaf Mountain Park, and West Mountain Park. Although it has been more than 10 years since these mountain areas were set apart and dedicated to public use as parks, no appropriation has been made to improve them. Three of them overlook Central avenue, the main thoroughfare of the city, and are near the principal hotels. It would be a real blessing to the invalids who come here for the benefit of these waters if these splendid park sites were improved and made accessible. They need the invigorating atmosphere, and the quiet and rest which may be found on these mountains. The scenery is charming, sublime, and beautiful. It would seem that nature had designed them for restful resorts for those who visit the nation's sanitarium.

It is sincerely hoped that Congress may be induced to make a liberal appropriation for the improvement of these national parks.

ROADS AND WALKS.

It appears to me that the construction of walks and roads on this reservation is a public duty and necessity. The Government has been in undisputed possession here for about 15 years. It owns all of these valuable hot-water springs, 900 acres in the permanent reservation and 326 valuable city lots. Yet, with all of this valuable and important interest, and in the face of the implied obligation to protect and improve this property, not one foot of sidewalk has been put down nor one foot of walk or road up to and about the hot-water springs has been built. The Government owns 1,636 feet of ground fronting on Central avenue in the heart of the city, but not one foot of sidewalk has been built there.

At the last session of Congress an appropriation of \$5,000 was made for the improvement of roads on this reservation. I am pleased to note this evidence of interest and liberality on the part of Congress. But the construction of walks and roads up to and around the springs, and on the western slope of Hot Springs Mountain, and over other portions of the mountain areas, will be expensive. The ground is rough and rocky and the grades heavy. It is confidently believed that when all of these facts are considered a more liberal appropriation will be made.

I respectfully and earnestly recommend that Congress be requested to make an appropriation of \$50,000 for these improvements.

WATER AND DRINKING FOUNTAINS.

Whittington avenue is near the center, from north to south, of the west half of the original reservation. From a point near the center of the north side of city block numbered 182, it was surveyed and platted into two branches, which run west and to the north and south of Gum Springs Creek to the western boundary. Gum Springs Creek, which is fed by springs of clear, pure water near the western boundary, flows east between the branches of the avenue to its confluence with Hot Springs Creek at the junction of Park and Whittington avenues. Between the branches of the avenue, and covering Gum Springs Creek and several of the springs just mentioned, it is a plot of ground about 1,800 feet long from east to west and from 100 to 200 feet wide, which was reserved by the Hot Springs Commissioners, and is now the property of the United States. These springs afford an abundant and constant supply of water. The elevation at the west end of the plot of ground is about 60 feet above the grade of Central avenue in front of the Arlington Hotel. By collecting this water in a suitable reservoir or basin near the western boundary and laying a 3-inch pipe along Whittington and Central avenues, and through Bath House Park an ample supply of clear, pure water could be obtained to feed five or six water fountains put at proper intervals in said park.

There is not a suitable and respectable hot water drinking fountain on the permanent reservation. There ought to be 6 or 8 handsome modern fountains put up in Bath House Park for public use. They could be fed from the hot water springs on the mountain side.

I estimate that the cost of collecting the water at the west end of the plot of public ground between the two branches of Whittington avenue, providing and laying the 3-inch pipe from there through Bath House Park, and providing and putting in place in said park five suit-

able water fountains and seven modern hot water drinking fountains, would approximate \$11,000.

I respectfully and earnestly recommend that Congress be asked to make an appropriation of \$11,000 for the above-named improvements.

THE POOL.

I have been informed that the "Pool" or "Bath House Association" was dissolved on January 1, 1891. It is hoped that the lessees of bath-house sites and hot-water privileges will find it to their interest to avoid these objectionable combinations and complications in the future.

MULTIPLE OWNERSHIP.

This form of combination and monopoly has not been abolished. It will be seen by reference to the tables of owners or lessees that a number of persons own interests in two or more houses. I will state, however, that I have been informed that these parties have divided and separated their multiple interests, subject to the approval of the Department and the renewal of the leases. The act of Congress approved March 3, 1891, confers upon the Secretary of the Interior ample authority in the premises.

COOLING TANKS.

I earnestly recommend that the cooling tanks be removed from the side of the mountain in the rear of the bath houses. They are unsightly and contribute to the poor appearance of the surroundings. But little can be done in the way of laying out and building walks and roads if they are permitted to remain where they are. And the water in these tanks should be protected from noxious and offensive contamination. It is a part of the water in which the guests of the houses bathe, and should be scrupulously guarded and protected.

The use of wooden tanks should be prohibited. They are absorbents and waste a great deal of hot water.

WATER PIPES.

The water pipes to supply hot water to the bath houses are in most cases scattered beneath the surface in Bath House Park. Many of them have been in use for a number of years and require frequent repairs. This necessitates digging up the grounds of the Park, which renders it impossible to keep the same in proper condition. This could be remedied to some extent by putting all of the pipes in one trench, which should be as near the front line of the houses as practicable.

The pipes to conduct the water to the cooling tanks mar and obstruct a great portion of the west side of the hill or mountain. In almost every case they are on or above the surface, some of them in rough and dilapidated board boxes. They should be collected, put in one trench, and buried out of sight.

All of this work should be neat, substantial, and permanent, and of the best materials.

RULES AND REGULATIONS.

Section 3 of the act of Congress approved March 3, 1891, confers upon the Secretary of the Interior full power to make all needful rules and regulations as to the use of the hot water and to prevent its

waste ; and also, generally, to make all necessary rules and regulations as to all bath houses and the service therein as shall be deemed best for the public interest, and to provide penalties for the violation of any regulation, which may be enforced as though provided by act of Congress.

Heretofore the superintendent has been almost powerless in respect to these matters. There was no penalty which could be enforced unless resort was had to the extreme measure of shutting off the supply of hot water.

These rules and regulations are to be made and published by the Secretary of the Interior.

REPAIRS ON THE SPRINGS.

Several of the inclosures around the hot-water springs are in need of repairs. Some have brick walls around them with old decayed wooden coverings. The brick walls around others leak and waste considerable hot water. It is respectfully recommended that these repairs be authorized in time to have the work completed before the winter season comes on.

THE MOUNTAIN SLOPE.

The western slope of Hot Springs Mountain, overlooking Central avenue and immediately in rear of the Arlington Hotel, and the bath houses on the permanent reservation, presents a rough and neglected appearance. Almost the entire surface is broken, uneven, and rough. Large, jagged stones are to be found at almost every step, many of them loose on the surface of the ground. Old excavations about the hot-water springs are open. Small ditches or gullies, washed out by the surface water, are encountered. Several dead and fallen trees are to be found in that neighborhood.

The appearance of this slope could be greatly improved by the expenditure of some \$200 or \$300.

ATTENDANTS AT FREE BATH HOUSE.

There are two attendants at the free bath house, one male and one female. Their duty is to keep the house in order, drain, clean, and fill the pools, look after the bathers, and care for and protect the Government property. The house is now kept open, for the accommodation of all who desire to bathe there, 15 hours per day, from 6 o'clock a. m. to 9 o'clock p. m., except on Sundays, on which days it is closed at 11 o'clock a. m. The attendants are required to be on duty during bathing hours. For this long service on week-days and 5 hours on Sundays they now receive the sum of \$15 per month. This pay is not commensurate with the length and character of the service rendered.

I respectfully request that this subject receive the early and favorable consideration of the Department.

POLICE.

That part of the reservation in the neighborhood of the hot springs should be under the constant and watchful care of some one authorized and empowered to enforce good order, abate nuisances, and arrest disorderly persons. A class of persons who visit here are frequently guilty of petty depredations in that vicinity. I have assurances

that a proper person appointed to look after and correct these evils would be invested with the power and authority of a policeman of this city in addition to the power given him by the Department.

HEALTH RESORT.

The Hot Springs of Arkansas continue to grow in favor in the estimation of the public. It is truly wonderful to see the many remarkable cures effected by the use of these waters. This is, indeed, the sanitarium of North America and should be liberally sustained by the Government. The number of visitors and invalids is steadily increasing each year, and the improvements and facilities for the accommodation, convenience, and comfort of the thousands who come here are keeping pace with this constant increase. There are about 400 hotels and boarding houses and 16 bath houses, with a total of 409 bath tubs, in the city. Other modern, commodious, and superior bath houses will be erected if leases and hot-water privileges can be secured. The Government should deal with this reservation in a liberal and charitable spirit.

EXPENSES AT THE SPRINGS.

Boarding and lodging, per month.....	\$16 to \$150	
Physicians' fees, per month.....	20	30
Medicines (if needed), per month.....	5	15
Bathing, per month.....	5	10
Bath servants (if needed), per month.....	3	5
Total per month.....	49	210

These figures represent the highest and the lowest, though some can get along with less and others manage to spend more; but these give a general idea. The regular fees of physicians are \$5 for first examination, with bathing directions, and \$25 per month for office practice (two or three consultations per week). Higher charges are only made where extra attention is required and visits made at the hotels.

BATH-HOUSE SITES.

The exterior lines of all bath-house sites on the permanent reservation should be distinctly defined, located, and permanently marked. Under present conditions it is sometimes impossible for the Superintendent to know when the lessees are occupying and using ground not covered by their respective leases.

The lease contracts should require the lessees to keep all of the ground covered by their leases clear of all rubbish and débris and in a good sanitary condition.

WATER IN PRIVATE HOUSES.

Section 1 of the act of Congress entitled "An act to regulate the granting of leases at Hot Springs, Arkansas, and for other purposes," approved March 3, 1891, authorizes the Secretary of the Interior to supply hot water to families off the permanent reservation, under such regulations as he may prescribe. My objections to this can be stated in a few words.

This hot water is public property. As such it should not be permitted to go into any house not open to the public. And it would be impossible to avoid the appearance of discrimination. I trust that no such permits will be granted.

WHETSTONES, OILSTONES, ETC.

Perhaps the finest variety of siliceous rock in the world is found in great abundance on this reservation. The Superintendent of Census, in Bulletin No. 75, page 14, says:

WHETSTONES, OILSTONES, AND SCYTHESTONES.

Varieties and occurrence.—The sources of supply of siliceous rock in the United States used for sharpening edged tools have been the same for some years. Arkansas, Indiana, and New Hampshire furnish the bulk of the supply, and a small quantity is produced in Vermont. The Arkansas stone is found in the neighborhood of Hot Springs, and is supposed to have been formed by the action of hot water upon the quartz formations. It is found in two varieties, known as "Arkansas" and "Washita" stone, the grains in the former being smaller and more compact, of a uniform bluish-white color, and semitransparent, while the Washita stone is more opaque and of a pure white color.

This valuable deposit is found on the north side and the eastern part of North Mountain and in city blocks numbered 159, 193, and 194. All of the lots in said blocks belong to the United States, except lot numbered 6, in block numbered 159, and lots numbered 5, 7, and 8, in block numbered 193.

THE WORLD'S FAIR.

Whetstone, novaculite, dendrite, quartz crystal, jasper, breccia, and tufa are found on this reservation.

Dr. Owen, State geologist of the State of Arkansas in 1860, says that this beautiful novaculite rock is "equal in whiteness, closeness of texture, and subdued waxy luster, to the most compact forms and whitest varieties of Carrara marble."

The quartz crystals are the most beautiful and in greater variety than are found in any other part of the world.

The jasper is striped and in variegated colors, red, white, yellow, and black, and is susceptible of high polish and very beautiful.

The black and purple siliceous breccia, when polished, is very attractive.

The dendrite in novaculite and porphyry is more attractive than the "forest rock" of Colorado.

The deposit of tufa on the western slope of Hot Springs Mountain is about 200 feet wide and 700 feet long. Its depth is not known. In making improvements for bath-house sites, excavations in this deposit have developed attractive and interesting specimens rivaling the celebrated tufa of the Yellowstone National Park.

Handsome and representative specimens of the above minerals could be collected and properly prepared for exhibit at the World's Fair at the city of Chicago in 1893 at reasonable cost, which I respectfully recommend.

THE HOT SPRINGS.

The issuing of hot water at this particular point is a manifestation of God's power in creation. All remedial and restorative properties which it contains are natural. Its presence here and its mystic and marvelous powers of alleviation and restoration are not accidental. There was a beneficent design. It is God's free gift to suffering humanity. And it was intended to be and remain forever within the reach of all, and for the benefit of all. It is true that the water first flowed over the surface of the earth in the homelessness of a mighty wilderness and

apparently forever beyond the reach of man. The first wild flowers which it warmed as it flowed down the mountain side were blooming and blossoming in the silence and solitude of an unknown land. The vapor, ascending heavenward, was laden with the perfumes of the wounded flowers and the music of the wild birds. All was wildness, denseness, and darkness. The sunlight and the starlight struggled with the hush and lonesomeness of the valley; and the songs and stories of tradition have been carried away to the realms of forgetfulness by the winds of that wild land, and the notes of that dismal day are buried in the mausoleum of the centuries. All is mysterious, shadowy, and silent.

But it is not for us to wonder at the gloominess and wildness of the spot where this healing water first met the sunlight in a desolate land. Many of the great agencies which God has provided for the alleviation of earth's ailments are found in remote and inaccessible portions of the earth. The Cinchona tree, which cooled the fevered brow of the dark-eyed Countess whose name it bears, is found where the soft southern breezes blow on the lofty peaks of the Andes. The white poppy blossoms in the land of the rising sun. Iodine comes from the dreary depths of the sea, where the tireless waves of the ocean lash the changeless cliffs and the gleam of the sea star shimmers on the tresses of the mermaids.

Just when this wonderful and valuable water was discovered, by whom, and the situation of the spring, mountain slope, and valley at that time, will never be known; nor can we ever know the number of centuries it has been flowing here. In a publication at hand I find the following statement:

It has been estimated by scientists from the physical evidence everywhere to be found in the vicinity of the springs, that they have been flowing for over 2,300 years.

It is fortunate, no doubt, that the scientists who made the above estimate availed themselves of the benefit of a minimum.

It is probable, however, that DeSoto and his proud chivalric band of Castilians were the first white men to look upon and drink of the waters of the Hot Springs. Traveling south from a point somewhere in the mountains of northwest Arkansas, from a village called "Coligoa," De Soto came to the "province of Cayas." Of this place, and of DeSoto's stay and experience there, a Portuguese writer, signing himself "A Gentleman of Elvas," says:

The governor rested a month in the province of Cayas, in which time the horses fattened and thrived more than in other places in a longer time, with the great plenty of maize and the leaves thereof, which I think was the best that has been seen, and they drank of a lake of very hot water and somewhat brackish.

This was in the autumn of 1541. It appears that about 10 days were consumed by the expedition in passing from Coligoa to the province of Cayas, and that the latter was *populous*. All of those villages and provinces were inhabited by Indians, and it appears that De Soto went from one village to another as directed or suggested by the inhabitants. These routes may have been suggested with the view of getting rid of De Soto and his men, or for the purpose of unloading him on some unfriendly tribe, province, or village. Thus the inhabitants of Coligoa directed him to the province of Cayas, which fact goes to show that the inhabitants of the former village, although perhaps 150 miles north of the latter, had some knowledge of the "lake of very hot water."

Other writers concur in the statement that De Soto visited this place.

One writer says that, after crossing the Mississippi River "at the lower Chickasaw bluff, a little north of the thirty-fourth parallel of latitude," the Spaniards continued their march until they reached the St. Francis River, which they crossed and gained the southern limits of Missouri, in the vicinity of New Madrid. Thence westward the march was renewed for about 200 miles; thence southward to the Hot Springs and the tributaries of the Washita River." Another writer, speaking of De Soto and his band of adventurers, says: "In their rambles they discovered the Hot Springs, now so celebrated, in the State of Arkansas."

These references and incidents clearly establish the fact that this place was well known to the Indians 350 years ago; but they leave us in utter ignorance as to the situation in all other respects. It appears that the Spaniards learned but little, if anything, about the great curative properties of the "lake of very hot water," and that they did not give it very much thought or investigation. It is dismissed with the simple statement that "they drank of it." But this fact does not, by any means, go to prove that the Indians did not know the value of this hot water. They were naturally jealous of the Spaniards, and, of course, withheld from them every important fact in relation to their country. The fact that Cayas was a populous province, known to be such by the inhabitants of Coligoa, 150 miles across the mountains, would naturally lead us to the conclusion that the Hot Springs had a great and extended reputation among the Indians, and that they withheld that fact from De Soto and his men.

There appears to be some confusion and uncertainty as to the time of the first settlement of the white man at this place, and as to the time the value of the waters became known. In the Pictorial History of Arkansas, 1890, by Mr. Fay Hempstead, the author says:

The first person to settle at Hot Springs was Manuel Prudhomme, who built a cabin there in 1807. In the same year he was joined by John Perciful and Isaac Cates, who camped there and engaged in hunting and trapping. In 1810 or 1811 Perciful bought out Prudhomme's improvements. By 1812 some few visitors occasionally came to the springs, but by 1814 there were not exceeding four or five cabins at that place. In 1820 Joseph Millard built a double log-cabin there, which he used for entertaining visitors, but abandoned it in 1826 or 1827. At this date the habitations there were mere movable camps. In 1828 Ludovicus Belding, with his family, settled there and found the valley entirely unoccupied. He built a house there in this year and lived in it. His heirs made a claim to preëempt the land on the ground of their residence there in this year and the year 1829. As early as 1829 the springs had begun to attract visitors in numbers, and the wonderful curative properties of the waters began to be known.

In the year 1830 Asa Thompson leased the springs, and began to put up bathing houses and to make accommodations for visitors, and these are the earliest bath houses of which there is any definite information.

It will be observed that the historian fixes the date when visitors were attracted to the springs, and the wonderful curative properties of the waters began to be known at a period "as early as 1829." But on the same and the succeeding page of his volume he relates the following:

About the year 1829 a claim for the possession of the springs was made in the name of James Ball, holding an interest with one Grammont Filhiol, then of Monroe, La., alleging that the lands there had been granted by Estevan Miro, governor of Louisiana in 1787, to Jean Filhiol, father of Grammont, who had sold in 1803 to one Narcissa Bourgrat, who had reconveyed to Jean Filhiol, who was commandant of the district of Ouachita from 1783 to 1800. It was clearly shown, however, by the testimony of Judge James McLaughlin, who had lived on the Ouachita since 1793, and who had been a surveyor under the Spanish Government, that the claim had never been regularly granted by the Spanish authorities, but was concocted in 1803 by the Spanish commandant of the district of Ouachita, Don Vincent Fernandez Techiero, successor to Jean Filhiol, who, seeing that the government was about to

change, and "wishing to do something for his friends," prepared a scheme to make conveyances of lands, antedated to have the appearance of their having passed through several hands, which the United States would be bound to recognize when it took possession.

And further along the author says:

In 1820 Col. Elias Rector, of St. Louis, located on the land embracing the springs a New Madrid certificate, originally issued to Francis Langlois, and by him assigned to Colonel Rector. Application for the entry of these lands was made January 27, 1819.

Now, when it is remembered that the distance from this place to Monroe, La., is about 150 miles, and to St. Louis, Mo., about 400 miles, the conclusion is irresistible that the "wonderful curative properties of the waters began to be known" long before the year 1829. We are told that a high officer of the Spanish Government prepared a "scheme" to get possession of this valuable property, "in order to do something for his friends," as early as 1803, and that Colonel Rector, 400 miles away and across a mountainous wilderness, made application for the entry of this valuable tract of land early in the year of 1819.

Again, Mr. Justice Bradley, of the Supreme Court of the United States, in delivering the opinion of that court in the case of *Hale et al. vs. The United States*, said:

These springs are situated in a narrow valley or ravine between two rocky ridges in one of the lateral ranges of the Ozark Mountains, about 60 miles to the westward of Little Rock. Though not easily accessible, and in a district of country claimed by the Indians until after the treaty made with the Quapaws in 1818, they were considerably frequented by invalids and others as early as 1810 or 1812.

Messrs. William Dunbar and Dr. Hunter, of the expedition of Lewis and Clarke, visited this place in December, 1804; and in the report of their visit I find the following:

At the Hot Springs they found an open log cabin and a few huts of split boards, all calculated for summer encampment, and which had been erected by persons resorting to the springs for the recovery of their health.

All of these collateral and inferential statements and facts must be accepted as strong and cumulative evidence that the "wonderful curative properties of the waters began to be known" many years earlier than 1829. That fact was no doubt known to, and handed down by, the Indians, who held and occupied this section of country for centuries before the advent of the white man. But up to that time the dust and shadows of the centuries dim and darken almost everything in relation to this wonderful place. The best and oldest authoritative account of the hot-water springs is that found in the report of the expedition of Lewis and Clarke, under the personal supervision of Mr. William Dunbar and Dr. Hunter. These surveys and explorations were made under the authority of the United States Government. The latter gentlemen left St. Catherine Landing, on the Mississippi River, in latitude $31^{\circ} 26' 30''$ N. and longitude $6^{\text{h}} 5' 56''$ W. from the meridian of Greenwich, on Tuesday, October 16, 1804. They descended the Mississippi to the mouth of Red River, and then ascended the latter, Black, and Ouachita Rivers to the mouth of the Hot Springs Creek, thence up that creek to the Hot Springs. There is so much of interest in their report that I feel warranted and justified in quoting at considerable length.

[Extracts from the report.]

At the Hot Springs they found an open log cabin and a few huts of split boards, all calculated for summer encampment, and which had been erected by persons resorting to the springs for the recovery of their health. They slightly repaired these huts or cabins for their accommodation during the time of their detention at the

springs, for the purpose of examining them and the surrounding country and making such astronomical observations as were necessary for ascertaining their geographical position.

It is understood that the Hot Springs are included within a grant of some hundred acres, granted by the late Spanish commandant of the Washita to some of his friends, but it is not believed that a regular patent was ever issued for the place, and it can not be asserted that residence, with improvement here, forms a plea to claim the land upon.

On their arrival they immediately tasted the waters of the Hot Springs, that is, after a few minutes' cooling, for it was impossible to approach it with the lips when first taken up without scalding. The taste does not differ from that of good water rendered hot by culinary fire.

On the 10th (December) they visited all the hot springs. They issue on the east side of the valley, where the huts are, except one spring, which rises in the west bank of the creek, from the sides and foot of a hill. From the small quantity of calcareous matter yet deposited, the western spring does not appear to be of long standing; a natural conduit probably passes under the bed of the creek, and supplies it. There are four principal springs rising immediately on the east bank of the creek, one of which may be rather said to spring out of the gravel bed of the run; a fifth, a smaller one than that above mentioned as rising in the west side of the creek; and a sixth, of the same magnitude, the most northerly, and rising near the bank of the creek. These are all the sources that merit the name of springs, near the huts; but there is a considerable one below, and all along at intervals the warm water oozes out, or drops from the bank into the creek, as appears from the condensed vapors floating along the margin of the creek where the drippings occur.

The hill from which the Hot Springs issue is of conical form, terminating at the top with a few loose fragments of rock, covering a space of 25 feet in diameter. Although the figure of the hill is conical it is not entirely insulated, but connected with the neighboring hills by a narrow ridge.

The primitive rock of this hill, above the base, is principally siliceous, some part of it being of the hardest flint, others a freestone extremely compact and solid, and of various colors. The base of the hill, and for a considerable extent, is composed of a blackish blue shistus, which divides into a perpendicular lamina, like blue slate. The water of the Hot Springs is therefore delivered from the siliceous rock, generally invisible at the surface from the mass of calcareous matter with which it is incrustated, or rather buried, and which is perpetually precipitating from the water of the springs. A small portion of iron in the form of a red calx is also deposited, the color of which is frequently distinguishable in the lime.

In ascending the hill several patches of rich black earth are found, which appear to be formed by the decomposition of the calcareous matter. In other situations the superficial earth is penetrated or incrustated by limestone, with fine lamina or minute fragments of iron ore.

The water of the Hot Springs must formerly have issued at a greater elevation in the hill and run over the surface, having formed a mass of calcareous rock 100 feet perpendicular by its deposition. In this situation they found a spring whose temperature was 140° Fahrenheit's thermometer. After passing the calcareous region, they found the primitive hill, covered by a forest of not very large trees, consisting chiefly of oak, pine, cedar, holly, hawthorn, and others common to the climate, with a great variety of vines, some said to produce black and others yellow grapes, both excellent in their kind. The soil is rocky, interspersed with gravel, sand, and fine vegetable mold. On reaching the height of 200 feet perpendicular a considerable change in the soil was observable; it was stony and gravelly, with a superficial coat of black earth, but immediately under it lies a stratum of fat, tenacious, soapy red clay, inclining to the color of bright Spanish snuff, homogeneous, with scarcely any admixture of sand, not saline, but rather a soft agreeable taste. The timber diminishes and the rocks increase in size to the summit. The whole height is estimated at 300 feet above the level of the valley.

On examining the four principal springs, or those which yield the greatest quantity of water or of the highest temperature, No. 1 was found to raise the mercury to 150°; No. 2 to 154°; No. 3 to 136°, and No. 4 to 132° Fahrenheit's thermometer. The last is on the west side of the creek. No. 3 is a small basin, in which there is considerable quantity of green matter having much the appearance of a vegetable body, but detached from the bottom, yet connected with it by something like a stem, which rests in calcareous matter. The body of one of these pseudo plants was from 4 to 5 inches in diameter; the bottom a smooth film of some tenacity, and the upper surface divided into ascending fibers of half or three-fourths of an inch long, resembling the gills of a fish, in transverse rows. A little further on was another small, muddy basin, in which the water was warm to the finger; in it was a vermes about half an inch long, moving with a serpentine or vermicular motion. It was invariably observed that the green matter forming on the stones and leaves covered a stratum

of calcareous earth, sometimes a little hard, or brittle; at others soft and imperfect. From the bottom of one of the hot springs a frequent ebullition of gas was observed, which not having the means of collecting, they could not ascertain its nature. It was not inflammable, and there is little doubt of its being carbonic acid, from the quantity of lime and the iron held in solution by the water.

They made the following rough estimate of the quantity of water delivered by the springs: There are four principal springs, two of inferior note; one rising out of the gravel, and a number of droppings and drainings, all issuing from the margin or from under the rock which overhangs the creek. Of the four first mentioned three deliver nearly equal quantities, but No. 1, the most considerable, delivers about five times as much as one of the other three; the two of inferior note may together be equal to one; and all the droppings and small springs are probably underrated at double the quantity of one of the three; that is, all together, they will deliver a quantity equal to eleven times the water issuing from the one most commodiously situated for measurement. This spring filled a vessel of 11 quarts in 11 seconds; hence the whole quantity of hot water delivered from the springs at the base of the hill is 165 gallons in a minute, or $371\frac{1}{2}$ hogsheads in 24 hours, which is equal to a handsome brook, and might work an overshot mill. In cool weather condensed vapor is seen rising out of the gravel bed of the creek from springs which can not be taken into account. During the summer and fall the creek receives little or no water but what is supplied by the hot springs; at that season itself is a hot bath; too hot, indeed, near the springs, so that a person may choose the temperature most agreeable to himself by selecting a natural basin near to or farther from the springs. At 3 or 4 miles below the springs the water is tepid and unpleasant to drink.

From the western mountain, estimated to be of equal height with that from which the hot springs flow, there are several fine prospects. The valley of the Washita, comprehended between the hills on either side, seemed a perfect flat and about 12 miles wide. On all hands were seen the hills, or mountains as they are called, rising behind each other. In the direction of north, the most distant were estimated to be 50 miles off, and are supposed to be those of the Arkansas River or the rugged mountains which divide the waters of the Arkansas from those of the Washita, and prevent the Osage Indians from visiting the latter, of whom they are supposed ignorant; otherwise these excursions here would prevent this place being visited by white persons or other Indians. In a southwest direction, at about 40 miles distant, is seen a perfectly level ridge, supposed to be the high prairies of the Red River.

Notwithstanding the severity of the weather, a considerable number and some variety of plants were in flower, and others retained their verdure. Indeed, the ridge was more temperate than the valley below; there it was cold, damp, and penetrating; here dry, and the atmosphere mild. Of the plants growing here was a species of cabbage, the plant growing with expanded leaves, spreading on the ground, of a deep green with a shade of purple. The taste of the cabbage was plainly predominant, with an agreeable warmth, inclining to that of the radish. Several tap-roots penetrated into the soil, of a white color, having the taste of horse-radish, but much milder. A quantity of them taken to the camp and dressed proved palatable and mild. It is not probable that cabbage seed has been scattered on this ridge; the hunters ascending this river have always had different objects. Until further elucidation, this cabbage must be considered as indigenous to this sequestered quarter, and may be denominated the cabbage-radish of the Washita. They found a plant, then green, called by the French "racing rouge" (red root), which is said to be a specific in female obstructions. It has also been used, combined with the China root, to dye red, the last probably acting as a mordant.

The top of this ridge is covered with rock of a flinty kind, and so very hard as to be improper for gun flints, for when applied to that use it soon digs cavities in the hammer of the lock. This hard stone is generally white, but frequently clouded with red, brown, black, and other colors. Here and there fragments of ironstone were met with, and where a tree had been overturned its roots brought to view fragments of schistus, which were suffering decomposition from exposure to the atmosphere. On digging where the slope of the hill was precipitous, they found the second stratum to be a reddish clay, resembling that found on the conical hill east of the camp. At two-thirds down the hill the rock was a hard freestone, intermixed with fragments of flint, which had probably rolled from above. Still lower was found a blue schistus, in a state tending to decomposition when exposed to the atmosphere, but hard and resembling coarse slate in the interior. Many stones had the appearance of Turkey oil stones. At the foot of the hill it expands into good farming lands.

Dr. Hunter, upon examining the waters of the Hot Springs, obtained the following results:

It differed nothing from the hot water in smell or taste, but caused a slight eructation shortly after drinking it.

Its specific gravity is equal to rain or distilled water.

It gave to litmus paper a slight degree of redness, evincing the presence of the carbonic acid, or fixed air sulphuric, and threw down a few detached particles. Oxylate

of ammonia caused a deposition and white cloud, showing the presence of a small portion of lime. Prussiate of potash produced a slight and scarcely perceptible tinge of blue, designating a small quantity of iron.

Sixteen pounds of water evaporated to dryness left 10 grains of a gray powder, which proved to be lime.

The myrtle wax tree grows in the vicinity of the springs. At the season in which the voyagers were there the wax was no longer green, but had changed its color to a grayish white, from its long exposure to the weather. The berry, when examined by a microscope, is less than the smallest garden pea, approaching to an oval in form. The nucleus or real seed is the size of the seed of a radish, and is covered with a number of kidney-shaped glands of a brown color and sweet taste. These glands secrete the wax which completely enveloped them, and at this season gives the appearance of an imperfectly white berry. This is a valuable plant and merits attention; its favorite position is a dry soil, rather poor, and looking down upon the water. It is well adapted to ornament the margin of canals, lakes, and rivulets. The *Cassia yapon* is equally beautiful, and proper for the same purpose; it grows here along the bank of this stony creek intermingled with the myrtle, and bears a beautiful little berry, very much resembling the red current.

The rock through which the Hot Springs either pass or trickle over appears undermined by the waters of the creek. The hot water is continually depositing calcareous, and perhaps some silicious, matter, forming new rock, always augmenting and projecting their promontories over the running water of the creek, which prevents its formation below the surface. Wherever this calcareous crust is seen spreading over the bank and margin of the creek, there most certainly the hot water will be found, either running over the surface or through some channel, perhaps below the new rock or dripping from the edges of the overhanging precipice. The progress of nature on the formation of this new rock is curious and worthy the attention of the mineralogist. When the hot water issues from the fountain, it frequently spreads over a superficies of some extent; so far as it reaches, on either hand, there is a decomposition of or growth of green matter. Several lamina of this green matter will be found lying over each other, and immediately under and in contact with the inferior lamina, which is not thicker than paper, is found a whitish substance resembling coagulum; when viewed with a microscope, the last is also found to consist of several, sometimes a good number, of lamina, of which that next the green is the finest and thinnest, being the last formed; those below increasing in thickness and tenacity until the last terminates in a soft earthy matter, which reposes in the more solid rock. Each lamina of the coagulum is penetrated in all its parts by calcareous grains, extremely minute, and divided in the more recent web, but much larger and occupying the whole of the inferior lamina. The under stratum is continually consolidating and adding bulk and height to the rock.

When this acquires such an elevation as to stop the passage of the water, it finds another course over the rock, hill, or margin of the creek, forming in turn accumulations of matter over the whole of the adjacent space. When the water has found itself a new channel, the green matter, which sometimes acquires a thickness of half an inch, is speedily converted into a rich vegetable earth and becomes the food of plants. The surface of the calcareous rock also decomposes and forms the richest black mold, intimately mixed with a considerable portion of soil; plants and trees vegetate luxuriantly upon it.

On examining a piece of ground upon which the snow dissolved as it fell, and which was covered with herbage, they found in some places a calcareous crust on the surface, but in general a depth of from 5 inches to a foot of the richest black mold. The surface was sensibly warm to the touch. In the air the mercury in the thermometer stood at 44° ; when placed 4 inches under the surface and covered with earth it rose rapidly to 68° , and upon the calcareous rock, 8 inches beneath the surface, it rose to 80° . This result was uniform over the whole surface, which was about a quarter of an acre.

On searching they found a spring, about 15 inches under the surface, in the water of which the thermometer showed a temperature of 130° . Beneath the black mold was found a brown mixture of lime and silex, very loose and divisible, apparently in a state of decomposition, and progressing toward the formation of black mold; under this brownish mass it became gradually whiter and harder, to the depth of from 6 to 12 inches, where it was a calcareous sparkling stone. It was evident that the water had passed over this place and formed a flat superficies of silicious limestone, and that its position, nearly level, had facilitated the accumulation of earth in proportion as the decomposition advanced. Similar spots of ground were found higher up the hill, resembling little savannas, near which hot springs were always discovered, which had once flowed over them. It appears probable that the hot water of the springs at an early period had all issued from its grand reservoir in the hill at a much greater elevation than at present. The calcareous crust may be traced up in most situations on the west side of hill looking down the creek and valley to a

certain height, perhaps 100 feet perpendicular; in this region the hill rises precipitously, and is studded with hard silicious stones; below the descent is more gradual, and the soil a calcareous black earth. It is easy to discriminate the primitive hill from that which has accumulated by precipitation from the water of the springs; this last is entirely confined to the west side of the hill, and washed at its base by the creek, no hot spring being visible in any other part of its circumference. By actual measurement along the base of the hill, the influence of the springs is found to extend 70 perches in a direction a little to the east of north; along the whole of this space the springs have deposited stony matter, calcareous, with an addition of silex or crystallized lime.

The accumulation of calcareous matter is more considerable at the north end of the hill than the south; the first may be a hundred feet perpendicular, but sloping much more gradually than the primitive hill above, until it approaches the creek, where not unfrequently it terminates in a precipice of from 6 to 20 feet. The difference between the primitive and secondary hill is so striking that a superficial observer must notice it; the first is regularly very steep, and studded with rock and stone of the hardest flint and other silicious compounds, and a surface of 2 or 3 inches of good mold covers a red clay; below, on the secondary hill, which carries evident marks of recent formation, no flint or silicious stone is found; the calcareous rock conceals all from view, and is itself frequently covered by much fine, rich earth. It would seem that this compound, precipitated from the hot waters, yields easily to the influence of the atmosphere; for where the waters cease to flow over any portion of the rock it speedily decomposes, probably more rapidly from the heat communicated from the interior of the hill, as insulated masses of the rock are observed to remain without change.

The cedar and wax myrtle and the *Cassia japon*, all evergreens, attach themselves particularly to the calcareous region, and seem to grow and thrive even in the cliffs of the solid rock.

A spring enjoying a freedom of position proceeds with great regularity in depositing the matter it holds in solution; the border or rim of its basin forms an elevated ridge, from whence proceeds a glacis all around where the waters have flowed for some time over one part of the brim; this becomes more elevated, and the water has to seek a passage where there is less resistance; thus forming, in miniature, a crater, resembling in shape the conical summit of a volcano. The hill being steep above, the progress of petrification is stopped on that side, and the waters continue to flow and spread abroad, incrusting the whole face of the hill below. The last-formed calcareous border of the circular basin is soft and easily divided; at a small depth it is more compact; and at the depth of 6 inches it is generally hard, white stone. If the bottom of the basin is stirred up, a quantity of the red calx of iron rises and escapes over the summit of the crater.

Visitants to the Hot Springs having observed shrubs and trees with their roots in the hot water have been induced to try experiments by sticking the branches of trees in the run of hot water. Some branches of the wax myrtle were found thrust into the bottom of a spring run, the water of which was 130° by Fahrenheit's thermometer; the foliage and fruit of the branch were not only sound and healthy, but at the surface of the water roots were actually sprouting from it; on pulling it up the part which had penetrated the hot mud was found decayed.

The green substance discovered at the bottom of the Hot Springs, and which at first sight has the appearance of plush, on examination, by the microscope, was found to be a vegetable production. A film of green matter spreads itself on the calcareous base, from which rise fibers more than half an inch in length, forming a beautiful vegetation. Before the microscope, it sparkled with innumerable nodules of lime, some part of which was beautifully crystallized. This circumstance might cause a doubt of its being a true vegetable, but its great resemblance to some of the mosses, particularly the byssi, and the discovery which Mr. Dunbar made of its being the residence of animal life, confirmed his belief in its being a true moss. After a diligent search, he discovered a very minute shell-fish of the bivalve kind inhabiting this moss; its shape nearly that of the fresh-water mussel; the color of the shell a grayish brown, with spots of purplish color. When the animal is undisturbed, it opens the shell and thrusts out four legs, very transparent, and articulated like those of a quadruped. The extremities of the fore legs are very slender and sharp, but those of the hind legs are somewhat broader, apparently armed with minute toes. From the extremity of each shell issue three or four forked hairs, which the animal seems to possess the power of moving. The fore legs are probably formed for making incisions into the moss, for the purpose of procuring access to the juices of the living plant, upon which, no doubt, it feeds. It may be provided with a proboscis, although it did not appear while the animal was under examination. The hind legs are well adapted for propelling it in its progress over the moss or through the water.

It would be desirable to ascertain the cause of that perpetual fire which keeps up

the high temperature of so many springs as flow from the hill, at a considerable distance from each other. Upon looking around, however, sufficient data for the solution of the difficulty is not discoverable. Nothing of a volcanic nature is to be seen in this country; neither could they learn that any evidence in favor of such a supposition was to be found in the mountains connected with this river. An immense bed of dark-blue shistus appears to form the base of the Hot Springs hill and of all those in the neighborhood. The bottom of the creek is formed of it, and pieces are frequently met with rendered soft by decomposition, and possessing a strong aluminous taste, requiring nothing but lixiviation and crystallization to complete the manufacture of alum. As bodies undergoing chemical changes generally produce an alteration of temperature, the heat of these springs may be owing to the disengagement of caloric or the decomposition of the shistus. Another, and perhaps a more satisfactory, cause may be assigned. It is well known that, within the circle of the waters of this river, vast beds of martial pyrites exist. They have not yet, however, been discovered in the vicinage of the Hot Springs, but may, nevertheless, form immense beds under the basis of those hills, and as in one place, at least, there is evidence of the presence of bitumen, the union of these agents will, in the progress of decomposition by the administration of air and moisture, produce degrees of heat capable of supporting the phenomena of the Hot Springs.

Having thrust a stick down into the crater of one of the springs, at some distance up the hill, several drops of petroleum or naphtha rose and spread upon the surface. It ceased to rise at three or four attempts.

No sulphuric acid is present in this water. The springs may be supplied by the vapor of heated water ascending from caverns where the heat is generated, or the heat may be immediately applied to the bottom of an immense natural caldron of rock, contained in the bowels of the hill, from which, as a reservoir, the springs may be supplied.

A series of accurate observations determined the latitude of the Hot Springs to be $34^{\circ} 31' 4''$.16 north, and longitude $6^{\text{h}} 11^{\text{m}} 25^{\text{s}}$; or $92^{\circ} 50' 45''$ west from the meridian of Greenwich.

The study of the situation here is interesting and perplexing. All of the hot water comes out on the western slope and base of what is called Hot Springs Mountain. It has numerous outlets, the most elevated of which are 70 or 80 feet above the lowest ones. The temperature is about 140° to 150° F. But is this one or many springs? This is the puzzling problem. It is hard to get at. We can not see the original or primitive formation and situation. We must indulge in speculation. It is probable, however, that on the morning of the first day after the internal disturbance or other natural cause which produced this marvelous manifestation of nature there was but one main or principal hot-water spring; that there was a mighty flow of hot water from it, and that its location was in the vicinity of the reservoir in the rear of the Arlington Hotel.

The natural position and formation of the mountain side and other surroundings, and the great bluff of calcareous deposit extending from the rear of the Arlington Hotel kitchen south to the Smithmeyer site, furnish mute but very strong corroborating evidence of the correctness of that theory. I accept and share it with great confidence. Messrs. Dunbar and Hunter say:

It appears probable that the hot water of the springs at an early period had all issued from its grand reservoir in the hill at a much greater elevation than the present.

In connection with the foregoing, it is deemed of importance to call attention to the fact that they speak of "four principal springs, two of inferior note; one rising out of the gravel, and a number of droppings and drainings, all issuing from the margin or from under the rock which overhangs the creek." The depth of the tufa formation has never been ascertained, but it is believed to be anywhere from 25 to 50 feet. It may be greater than the outside figure. Messrs. Dunbar and Hunter speak of it as 100 feet perpendicular.

The principal deposit originally, that is, before the hand and agents

of man disturbed it, reached out to a line drawn from the Arlington Hotel kitchen through a portion of the hotel and through the Rector, Big Iron, Superior, and Old Hale bath houses, and terminated about the center of the old Smithmeyer site. It extends from this line in an easterly direction up or to the side of the mountain to the line of hot-water springs, running from the Smithmeyer site to the group of springs east of the reservoir, in the rear of the Arlington Hotel. This huge bluff of tufa, which appeared to be "100 feet perpendicular" almost a century ago, has been built up by the slow process of precipitation of the matter held in solution by the hot water.

In the beginning, on the morning of the first day of the outflow of the hot water at this point, there was no tufa formation here. It is important to keep this fact constantly in view. The primitive earth and rocks were bare and exposed to view. They are now covered over many feet below the surface of the tufa formation. The first deposit was no doubt several, perhaps many, feet below the level of the spring, but it was gradually built up to that level and until it reached back to and around the main fountain. This was the work of centuries. We must allow for the displacement by decomposition and erosion. But the water in the spring had sufficient pressure to rise above this obstruction, and as it rose higher and continued to flow the process of precipitation and building up went on until the deposit forced the spring back to the bluff or mountain side, and until the spring probably reached tiptop or the extreme limit of its pressure. It is clear to my mind that this was the case, because we know that just as long as the hot water continued to flow over the surface of the tufa the deposit and process of building up was also continued. The water could not rise to the stars; so we see that in the very nature of things there must have been and was an extreme line and limit to the elevation of the water.

Of course, we do not know what causes this hot water to rise as high as we find it. It may be the altitude of the source, or it may be internal heat; but, be that as it may, the water must have reached tiptop or a sufficient elevation to cause the lateral pressure to force outlets at a lower level; otherwise it would have kept on climbing up the side of the mountain. When tiptop was reached the water was completely hemmed in by the tufa deposit in front and the bluff or mountain in the rear. Then it ceased to flow at that point. It is a well-known fact that this hot water will choke up and stop its own flow over the exposed surfaces of tufa or rocks. The limit of its pressure had been reached and it could not rise above the obstructions which surrounded and held it fast. But the forces of nature relieved it.

While it contained the elements which imprisoned it, it also contained the elements to dissolve and destroy the prison which held it. Its own great heat was one of its principal weapons of defense. The internal heat caused the tufa to soften, decay, and decomposition to set in, and the surface of the deposit slowly disappeared. Finally, the decomposition and displacement reached to the head of the water where it had been pushed back against the bluff or mountain and gave it an outlet at that point. Then precipitation and the process of building up again set in and it was again imprisoned as before. How long, for how many full centuries, this was repeated, it is beyond the ken of man to know. The water of the hot springs is peculiar in this respect. It contains in a large degree the elements to imprison and liberate itself. Precipitation and decomposition went on in the shadow and silence of this valley for centuries upon top of centuries before the approach of man. But the water had another potent agent to assist it in this

struggle for freedom. During these centuries the water was partially and sometimes entirely hemmed in at the summit and banked up against the tufa deposit in front of it. The great and constant heat caused decomposition in the tufa below the surface, perhaps as far down as the base, until finally the lateral pressure was sufficient to force numerous small outlets at a much lower level. Or it may be that during the time the water was hemmed in and held fast at the summit the pressure was so great that, assisted by the heat, it forced outlets through the strata of rock at points far below the original point of discharge. This may have occurred before the water reached the extreme line and limit of its head or pressure. In that case a portion of the water was flowing at the lower levels while it was held fast near tiptop. These outlets, of course, relieved and lowered the head or pressure at the top and caused the water to recede a few feet at that point. But although they comprise what we now know and designate as the Rector, Big Iron, Old Hale, and other "springs" on the Rector, Big Iron, and Old Hale bath house sites, and furnish perhaps 75 per cent. of the hot water now utilized here, they were not and are not sufficient to discharge, in a free and natural way, the total flow from the main spring or fountain. Hence, this relieved but did not drain the fountain. It was imprisoned and apparently at rest a few feet below the surface of the tufa which had been deposited above it before the pressure was relieved. I am not prepared to say that all of the water does not find some sort of an outlet. It probably does get out and away somehow, but in getting out of its self-made prison it is scattered in so many directions and forced through so many outlets at different levels that it is impossible to collect and utilize it.

Messrs. Dunbar and Hunter found it in that situation. They say:

On examining a piece of ground upon which the snow dissolved as it fell, and which was covered with herbage, they found in some places a calcareous crust on the surface, but in general a depth of from 5 inches to a foot of the richest black mold. The surface was sensibly warm to the touch. In the air the mercury in the thermometer stood at 44° ; when placed 4 inches under the surface and covered with earth it rose rapidly to 68° ; and upon the calcareous rock, 8 inches beneath the surface, it rose to 80° . This result was uniform over the whole surface, which was about a quarter of an acre. On searching they found a spring, about 15 inches under the surface, in the water of which the thermometer showed a temperature of 130° . * * * Similar spots of ground were found higher up the hill, resembling little savannas, near which hot springs were always discovered, which had once flowed over them.

The "quarter of an acre" mentioned was, no doubt, near the reservoir in the rear of the Arlington Hotel, and the "Little savannas" must have been the group of springs east of that reservoir. In my judgment these are over the original fountain, which is many feet below. And this situation is the same now, except that the water does not stand so near the surface of the tufa. This fact in my judgment, tends to prove that the outlets at the lower levels have enlarged; that more hot water is issuing from the lower "springs" and lateral outlets than in 1804, and that they will continue to enlarge by decomposition or erosion or both and thus give passage to a larger and still larger quantity of hot water from year to year.

It is highly probable that what we are in the habit of referring to as "springs," including the "Big Iron," "Old Hale," "Rector," and all others which come out at the low levels, are nothing but mere outlets leading from the main spring proper, from which an enormous quantity of hot water issues, and that they are insufficient to discharge the total flow without causing the water to rise to the high elevation where we

find it on the side of the mountain so as to give it sufficient pressure to force its way out, not only through these "springs," or outlets, but through numerous others perhaps many feet below the surface. By this means a large quantity of the hot water escapes unseen, mingles with the cold water in the creek and other channels below the surface, and is lost forever in the general collection in the Ouachita River a few miles south of this place. It is also probable that much of this underground waste could be prevented and a large volume of the water recovered and controlled by judicious work in the vicinity of the reservoir in the rear of the Arlington Hotel. I would excavate behind the tufa deposit and against the primitive bluff until I reached a point far enough below the present water line to afford the water a full, free, and easy flow down the mountain side through the necessary distributing pipes. This would draw off the head and lessen the pressure, which would have a tendency to check the flow through the lateral outlets. It is not necessary to discuss the proposition that water will go where it meets with the least resistance.

That there is hot water beneath the surface of the tufa east and southeast of the reservoir and that it is lower than it appears to have been in 1804 is no longer a matter of speculation. About 3 months ago I caused a small excavation to be made in the tufa about 70 feet southeast of the reservoir mentioned and about 12 feet from the upper outside margin of the tufa deposit. At the depth of about 4 feet quite a quantity of hot water was uncovered, the temperature of which is 145° . The bottom of the excavation is a black mold of dissolved or decomposed tufa and quite soft. I caused a section of pipe to be run down to the depth of 17 feet from the bottom of the excavation, making about 21 feet below the surface. On withdrawing the pipe it was found to be very hot all the way to the lower end. This was repeated at another point in the same excavation. I uncovered hot water at another point about 20 feet from the first excavation. I then moved north to a point about 50 feet east of the reservoir and drove a pipe down through the tufa to the depth of about 16 feet. I found hot water there, which appears to stand about 5 feet beneath the surface of the tufa. The point of the latter experiment is about 75 feet north of the first excavation. The fact that a pipe was pushed down in the first excavation to the depth of about 21 feet without meeting hardly any resistance, and that, too, within 12 feet of the upper or outside margin of the tufa, leads me to believe that the mountain terminates in a bluff along the line of the group of springs in that vicinity, that the tufa deposit has been built up to or near this bluff, and that the main hot-water spring or fountain is near the base of the bluff, perhaps 75 feet below the present surface. However this may be, there is no doubt in my mind as to the presence of a large body or supply of hot water in that vicinity, and that its flow is obstructed by the tufa in front of it. Nor is there any doubt in my mind that it is slowly and gradually opening new outlets and enlarging the present ones. This is one of the long periods of decomposition and displacement. We may never know how many have occurred. The principal outlets as now developed and in sight are at the lower margin of the tufa bluff and extend from under the Arlington Hotel to about the center of the Smithmeyer site. I do not know how much hot water comes out below the present grade of the Arlington Hotel site and the Rector, Big Iron, Superior, Old Hale, and Smithmeyer bath-house sites. The early maps show quite a number of hot springs in that vicinity. If the water eventually recedes from its present high elevation east of the reservoir, and that it will do so unless relieved in some way I be-

lieve has been demonstrated by known facts and results, a large per cent. of it will come out at the low levels between the points named. I estimate that 75 per cent. of the hot water now utilized issues from the earth or tufa at points covered by and in the rear of the sites mentioned.

Now, the foregoing observations suggest and present questions of fundamental importance to this reservation and this valuable hot water. It may be said that they are based on a mere theory. I will grant that. But who will disprove that theory? How? By a simple denial? Surely not. A contention of that sort would not settle anything. But these questions ought to be settled, and settled soon, so much depends upon it. It is not safe to grope around in the dark much longer. If the water is banked up and hemmed in near the reservoir in the rear of the Arlington Hotel, that fact can and ought to be ascertained. If it is gradually receding to the lower levels and finding outlets in the vicinity of the sites named, that fact should be ascertained. And if the main hot-water fountain is buried beneath the tufa in the vicinity of the said reservoir, that fact should be ascertained. These are matters of too much importance to be left to speculation.

I therefore respectfully and earnestly recommend that Congress be asked to make an appropriation of \$10,000 to be expended in the investigation of the matters suggested under this head.

I am, sir, very respectfully, your obedient servant,

FRANK M. THOMPSON,
Superintendent.

The SECRETARY OF THE INTERIOR,
Washington, D. C.

REPORT OF SUPERINTENDENT OF YELLOWSTONE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,
OFFICE OF SUPERINTENDENT OF
YELLOWSTONE NATIONAL PARK,
Mammoth Hot Springs, Wyo., August 15, 1891.

SIR: Agreeably to your request under date of the 27th ultimo I have the honor to submit the following report of operations and events in the Yellowstone National Park since I assumed control:

Complying with Special Order, No. 17, c. s., Adjutant-General's Office, I reported in person to the Secretary of the Interior in January last for instructions, and a few days thereafter started for my post of duty, stopping en route at St. Paul for consultation with General Ruger, then commanding the Department of Dakota.

I arrived here on the 14th of February, and the next morning relieved Capt. F. A. Boutelle, First Cavalry, of the charge of the Park and at the same time assumed command of the troops stationed within its limits.

I presume Captain Boutelle will render a report of operations prior to this date.

Up to the date of my arrival but little snow had fallen, and the winter had been exceptionally mild and open; storms soon set in and within the next 6 weeks near 7 feet of snow fell. This comprised nearly the entire fall for the winter as against more than 17 feet for the previous season. The ground became bare early in April, and on May 1st I started on my first trip through the Park. As I rose to the higher levels I found plenty of snow remaining, but the roads were easily passable at least a month earlier than usual. The season thus began early and promised well, but June turned out a cold, wet, disagreeable month and travel received a check from which it has only recently recovered.

EXTENSION OF THE PARK.

On 30th March the President, under authority contained in the act for the repeal of the timber culture laws, set apart as a timber reservation a tract of land bordering the Park on the east and south.

Under date of 14th of April this reserve was placed under my charge, "to assume control thereof and do any and all things as to this accession as you do in the Park itself;" there was thus added a strip 25 miles wide to the eastern and one about 8 miles wide to the southern side of the Park.

It has long been a matter of conjecture that there is a good deal of mineral wealth on and near the head of the Stinking Water, eastward of the Park. Last year these conjectures bore fruit in inducing a rush of mining men to that section; this year a steady stream of them has poured into the region, with what success is not yet known. Those best acquainted with the locality say there is no doubt that a part, at least, of the new district is within the limits reserved by the President's proclamation.

I have not as yet been in the country referred to, but hope to go there soon. Nothing, however, can safely be done to protect the place until it is definitely decided that it is within these limits.

As soon as the added district was placed under my charge I wrote requesting a careful and complete survey of the boundaries, and that they be plainly marked. This has now been ordered, and I hope will soon be accomplished. It is most important that the east line be run to definitely settle the position of these new mines; it is also important that the south line be run, and marked, for the protection of the large game that ranges in that part of the Park.

The west line is nearly coincident with the Wyoming-Idaho line, and its exact location must always be a matter of some doubt. I therefore recommend that the State line be marked instead. The question of cutting off a portion of the north end of the Park has often arisen, but I trust will never receive favorable consideration. The present line runs over the crest of a range of very high mountains and settlement on or near it is impossible.

One proposition is to make the north line the same as the Wyoming-Montana line; this would result in moving a collection of groggeries 2 miles nearer this place, which is most undesirable. The second proposition is to cut off all that part of the Park north of the Yellowstone, Lamar, and Soda Butte Rivers. This would throw out an extensive game country, especially the home of the mountain sheep, and permit settlements in dangerous proximity to a favorite winter range of all the larger animals.

PROTECTION OF FORESTS.

Thus far the season has been extremely wet and we have had very little trouble with forest fires; the few that have appeared have been extinguished by the patrols without calling out the troops for assistance. I sincerely trust the same good fortune will attend us to the end of the season, but it is scarcely probable. There are more camping parties than usual in the Park this year, and it requires ceaseless vigilance to compel them to *thoroughly* extinguish their fires. Other

sources of fires are carelessly thrown cigars and cigarettes, lightning, and probably even the rubbing together of partially fallen dead trees as they are swayed by the wind.

The serious consequences of a fire here can only be understood by those who have observed the almost impenetrable thickness of the pine forests with their dense masses of fallen and decaying trees.

OUTPOSTS IN THE PARK.

Up to the present time there has never been an outpost near the south line of the Park. As settlements are rapidly springing up near Jackson's and Henry's Lakes, and these regions are becoming the famed resorts of hunters and hunting parties, a permanent station somewhere near the junction of the Lewis and Snake Rivers will become a necessity.

It is too late to accomplish it this year, but I hope to send a small party there early in the spring with orders to build a hut for themselves and a stable for their horses, and arrange to put up a winter's supply of hay; they will then be in condition to spend the winter of 1891-'92 there, and render needed protection to the immense herds of game in that vicinity. Unless I provide for a winter station at Riverside to watch the poachers from that region I do not see any necessity for further change in the arrangement of outposts; patrols continued late into the autumn will serve the purpose quite as effectually.

MILITARY QUARTERS.

Soon after my arrival here I was directed to report upon a selection of a site for new buildings for use of the troops. This site is on the plain southeast of the Mammoth Hot Springs Hotel, and quite near it. After approval the site was adopted, and the new buildings are now well under way, with a prospect of occupancy by 1st November at the latest.

At present provision is only being made for a single troop, but the plans are drawn for two, and I hope the second will be provided for next year. For several years past a second troop has been sent here from some neighboring post for temporary duty during the summer. This always involves no inconsiderable expense for transportation and a depletion of the garrison drawn upon. Since the extension of the Park demands increased detached service, especially in the hunting season late in the fall, I call your attention to the urgency of having this second troop made a part of the permanent garrison.

ROADS, ETC.

In 1890 the bill for improvement of the roads, etc., in the Park did not become a law until 30th August. This gave very little time for work before the winter set in, and most of the \$75,000 appropriated was left unexpended.

The act for the present year—3d March, 1891—carries with it \$75,000 and “the unexpended balance” of previous years.

The season opened early, but for some reason work on the roads was begun very late. During May and June great numbers of laboring men gathered in this vicinity, claiming to be waiting for work. They soon got out of provisions and money, and many of them were reduced to the last straits. As a protective measure I was finally forced to order them to leave the Park. Some left the country entirely, while others only went as far as Gardiner or Cinnabar, and there continued to wait. During this period my haystack was burned, undoubtedly by some one of this class who had sought a bed there for the night. Work finally started up some time in July, and the “tramp nuisance” was abated.

A location for a new road, according to the terms of the act of March 3, 1891, has been made between the “Fountain and the West Thumb of the lake.” This road turns off the road to Shoshone Lake a short distance north of the Lone Star Geyser and runs, by easy grades, over the divide to the Thumb. There is a strong force at work on it, with good prospect of its being opened before winter sets in.

The road from the cañon to the Thumb, via the Lake Hotel, is also under construction, and is being rapidly pushed. I expect to be able to drive over the entire circuit within the next 30 days.

Lieutenant Chittenden, U. S. Engineers in charge of the work, is zealous, untiring, and remarkably efficient in its prosecution, and will certainly make a fine showing by the end of the year.

The roads already built have been kept in good repair, and the journey through the Park need no longer be contemplated with dread. When this large number of laborers is paid off and discharged at the end of the season there is some cause for fear of fires and various forms of disorders. These shall, however, receive my careful attention.

HOTELS.

I am glad to be able to report a most satisfactory state of affairs in so much as concerns hotel accommodations. The building at this point is in the same state it has been in for many years past. It is excellently managed and gives satisfaction in every particular. The lunch station at Norris is also excellently kept, and comfortable lodgings are provided for such tourists as elect to spend a night there; a few improvements have been made in the matter of wash rooms, closets, etc.—perhaps all that the use of the place will warrant.

The hotel at the Cañon is completed; is well and comfortably kept, but is a most unsightly edifice.

The Lake House has one wing completed, and this is all that will be needed until the tide of travel sets more in that direction. It is one of the pleasantest, best kept hotels in the Park, and deserves better

patronage than it has yet received. I regard it as the most desirable place in the Park for a prolonged stay.

The old hotel at the Lower Basin was vacated about the middle of June, and the new building at the Fountain was then occupied. It is the largest, best built, and in every way the finest building in the Park, and I doubt not is destined to become one of the most popular. It is not yet entirely completed, but I learn that the management expects to have the workman out of it by the end of this month.

It is very satisfactorily kept and I hear no complaints of it. There are no changes to report in the hotel at the Upper Basin; so long as the law prevents a valid lease for the site so long will the old shed remain rickety and unsatisfactory. The Trout Creek lunch station, under canvas, is quite the same as last year. On the whole I can report a very great improvement in hotel accommodations, with a most satisfactory state of management. Mr. W. G. Johnson, manager for the Yellowstone Park Association, is working hard and intelligently to remove from it the odium that has heretofore attached to it, and with a large measure of success. The complaints that have reached me have been few and trivial.

TRANSPORTATION.

Transportation in the Park has been carried on under the leases granted the Yellowstone Park Association. Mr. George Wakefield has managed it for a number of years, and he has as fine transportation as there is anywhere in the world; stages and harness are new, clean, and well kept; horses are gentle and in good condition; drivers sober, accommodating, and competent; there have been very few complaints of them, although perfection in this class of public servants is not always easy of attainment. A complaint has been made that stop-over privileges have not been freely accorded, but on representation to the manager the evil received prompt correction.

On the 1st of April last I was notified that the right of the Park Association to conduct transportation was revoked, to date from 1st November next, and that this right was, from that date, given to Mr. Huntley, of Helena, Mont.

Mr. Huntley came into the Park in June and remained a considerable time looking over the field. He has not in any way communicated with me, and I have no knowledge as to what preparations he is making for the conduct of affairs next season, but I trust the present high standard will be maintained.

BOAT ON THE LAKE.

The proposition to put a small steamer on the lake for the accommodation of tourists has been agitated for a good many years, but was only recently accomplished. Early in July an inspector came and gave the boat a license to carry 125 passengers. It is a smooth-running,

seaworthy little vessel and will add much to the attractiveness of the lake as a resort. I hope to see it made a part of the Park transportation, and used in ferrying tourists from the Lake Hotel to the West Thumb in their journey around the circuit.

In July the Engineer Corps, U. S. Army, put on a small boat which they use in supplying their road camps with forage and provisions and in hauling lumber from the mill to the various points where it is to be used. On invitation of Lieutenant Chittenden I accompanied him on a trip of exploration on the Upper Yellowstone, but for lack of sufficient depth of water we were only able to ascend the river a few miles.

TOURISTS.

The most ceaseless vigilance is needed to prevent tourists from mutilating the beautiful formations in the Park. I do not believe 10,000 men could *entirely* accomplish it. Ladies are the greatest specimen hunters, and often they do not carry their trophies farther than the hotels. By a careful supervision of the guides I have managed to keep this form of vandalism at a minimum. Another source of great annoyance is the persistence with which men will write their unlovely names on everything that is beautiful within their reach. This form of barbarism is confined almost entirely to *men*, and, if we may judge from the writing, to the boorish and illiterate.

About a week ago a stage coming into the Park from Beaver Cañon was held up and robbed about 20 miles beyond Park limits. I gave immediate orders for a careful search by all the patrols in that direction, but so far have got no trace of the thieves.

There is an unusually large number of people entering the Park with guns of various kinds. From those who are simply making a tour of the Park, with the purpose of returning this way, I take the arms and restore them to the owners on their exit. A great many parties, however, come this way with intention of going out by Riverside or Jackson's Lake. For such parties I can only seal the guns, with admonitions not to break seals within Park limits. This is only a measure of security with such people as would not hunt inside the Park in any event. If others get in unfrequented localities I fear temptation would prove too much for them.

I am constrained to recommend that sufficient notice be given that from a fixed date, say June 1, all carrying of guns within the Park will be strictly prohibited. Exceptions can then be made, and special permits granted by the Superintendent to people of undoubted reliability.

FISH.

For the most part the lakes and rivers of the Park are literally filled with trout; I have never seen so many fish elsewhere as there are in the shoal waters near the borders of the Yellowstone Lake. Two years ago the Fish Commission began stocking the streams that were desti-

tute of fish, and the work was continued last year. At the present time some members of the Commission are in the Park, making an examination of these plants. I hope they may yet stock some of the smaller lakes with black bass, and thus afford a variety of sport to the angler.

WORK DONE IN PARK.

The numerous camping parties that have gone through the Park, as well as the many teams employed in hauling supplies into the interior, have left unsightly groups of empty cans, bottles, and other débris. With the approval of the Secretary of the Interior I employed a team, driver, and two men to go over the routes of tourist travel and clean up these littered places.

The season is now so far advanced that I shall not undertake to go over it again before spring. The sign boards that have been placed to designate the various objects of interest, as well as those conveying warning notices, have become much obliterated by time. At the close of the season I shall have them taken down and repainted, and replaced before the opening of travel in the spring.

POACHERS.

So long as there is no law within the Park for the prevention of hunting and trapping, it will be a most difficult matter to break them up. Cook City, just off the northeast corner of the Park, is fed entirely on elk meat, and I doubt not a large proportion of it has been killed within the Park limits.

On my arrival here I was told that one Van Dyck was the principal hunter for that place, and that his hunting grounds were near Soda Butte. I sent out three separate expeditions for him before he was finally taken, in his camp near Lamar River, with beaver traps and other evidences of his trade in his possession. I kept him in custody for over a month awaiting the Secretary's orders, and then turned him loose after confiscating all his property. He is now in Cook City once more, but I hear that he is conducting his expeditions outside the Park. As the killing of elk in Montana is absolutely prohibited by law for a term of years, it seems strange that this traffic at Cook can not be broken up.

I am satisfied that both hunting and trapping are carried on within the limits of the Park from over the western border. I shall make an endeavor to "encourage" the majority of these trespassers by bringing a few of them to justice this fall.

Mr. Ed. M. Wilson, who has been a most invaluable man as a scout, guide, and hunter, mysteriously disappeared on 27th July and left no trace behind. It will be quite impossible to replace him, for there is no man in the region who at once has the intimate knowledge of the country, and of the hunters and their methods, that he had.

I learn of three or four buffalo heads that have been mounted in Bozeman, Livingston, and other neighboring towns within the past year. I doubt not all of these were killed within the Park, or very close to the line without it. Such specimens are become very rare, and fine ones are held at \$400 to \$1,000. Such prices tempt the cupidity of the border pirates who live near, and with small equipment they can enter the Park on foot and take their chances of capture and the confiscation of their small stock in trade.

The most effectual way to break up this business would be the prosecution of the taxidermists who purchase the specimens—possession of which is prohibited by the laws of all the adjoining States. I have abundant evidence, however, that the buffalo are contented and quiet in the park and that they are on the increase. Some tourists who went through the park in May saw a herd of about 30, with several small calves, near the Trout Creek lunch station. About the same time some employés of the Yellowstone Park Association saw what was probably the same herd, and I saw there an abundance of fresh signs the first week in June.

In July I sent Wilson out to observe the herd that ranges near the west line of the Park. He found two small bands of about 30 each, one with 12 or 15 calves; in addition he saw several single ones and small bunches. I do not think it is exaggeration to say there are 200, and probably there are 400, within the Park, and that they are thriving and increasing.

The elk have increased enormously, and most conservative estimates place their numbers at 25,000, and I have no doubts of the presence of that many. Their continuance in the Park is assured, and their overflow into adjoining territory will furnish abundant sport for the hunter.

Mountain sheep, deer, and antelope are tame, numerous, and on the increase; as they are hunted but little, if at all, they are certain to be preserved. There are a few moose in the extreme southern part of the Park, whose numbers I shall endeavor to approximate during a trip that I hope to make to that country in October.

I presume trapping of the fur-bearing animals is carried on across the Park lines, but careful watching and one or two arrests have reduced it to a minimum. One or two more examples like that of Van Dyck will put an end to it.

CAPTURE OF ANIMALS.

On my arrival here I found authority to capture animals for the National Zoological Gardens at Washington, D. C. The appointment as hunter was given to Mr. Elwood Hofer, the most competent man in the country. Owing to scarcity of funds with which to pay him he resigned his appointment after two months, but continued to collect specimens. He has caught and turned over to me, and I hold awaiting shipment, two black bear cubs, three young foxes, two elk, and a black-tailed deer.

I also had two antelope, but one night about two weeks since some carnivorous animal broke into their inclosure and killed and ate them. When the time for shipment comes I can readily trap and add to the collection a number of the smaller animals, like wolverines, wolves, lynxes, martins, badgers, porcupines, beavers, etc. All can be shipped in one car, which should go under charge of an attendant.

Bears have become very troublesome at all the hotels, camps, slaughter-houses, and other places in the Park where there is anything for them to eat. They have not proved at all dangerous, but it is impossible to keep provisions anywhere within their reach.

I authorized the capture of one at the Fountain Hotel, but he died of a rupture of the heart in his struggles to escape. I had another caught in a trap there and he is now in the Washington gardens.

I have had 4 small bears caught; two I have still, one broke his chain and escaped, and one was eaten up by an old bear while he was chained in front of the house at Yancey's. As winter approaches I may find it necessary to kill an occasional one, especially if they become destructive of the game, or beef and mutton herds. By another season I hope to be able to supply specimens of all the animals native to the Park; their retention here during the season has proven very interesting to the tourists.

The Park is almost entirely within the State of Wyoming, and yet it is absolutely inaccessible from that State. If a part of the Government appropriation should be expended in making a road down the Snake River as far Jackson's Lake, I have no doubt connection would soon be made with it from some point on the Union Pacific Railroad, and thus a new and desirable route to the Park be opened. It is but a little more than a year before the opening of the World's Fair in Chicago. This will bring visitors here in numbers heretofore unknown.

No expenditure can be made of the revenues of the Government that will bring more satisfactory return than liberal, generous appropriations for the improvement of the Park. I venture to recommend an appropriation of at least \$100,000 for construction and repair of roads, with a suggestion that it be made available as early in the year as possible, that it may be expended while work on the roads is yet possible in the autumn. The amount of money at the disposal of the Superintendent is ridiculously inadequate. In place of the few hundreds that he has annually, he should have at least \$10,000 to be expended in policing camps, clearing up fallen timber, renewing sign boards, and the many objects properly under his care.

LAW IN THE PARK.

It seems hardly necessary to call your attention to the need of laws for the government of the Park. Senate bill 491, first session Fifty-first Congress, as amended and referred to the House Calendar, has much to commend it, and with a few modifications would effect all that can

be desired. For convenience the jurisdiction of the court should be on the Montana side, and the railroad charter (section 11) should by all means be omitted. Otherwise the bill is as nearly perfect as may be, and I trust the passage of it, or one similar to it, may be pressed and accomplished.

My thanks are due to Capt. F. A. Edwards, First Cavalry, for the earnest and intelligent support he has given me in the conduct of affairs near his camp.

I accompany this report with a transcript of the meteorological record of the post, kept under direction of the post surgeon.

I am, sir, yours, most respectfully,

GEO. S. ANDERSON,
Captain Sixth Cavalry,
Act'g Supt. Y. N. P.

The SECRETARY OF THE INTERIOR.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891.

JULY, 1890.

[Mean temperature 65°.9.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
1	83	47	36	S.	During night.....		<i>Inches.</i> .10	<i>Inches.</i>	Rain. Thunderstorm, rain, and hail.
2	75	45	30	E.	12.45 p. m.	1.40 p. m.	.24	.....	
3	85	47	38	SE.	.....	.....	.....	.....	Sprinkling.
4	88	45	43	S.	.....	.....	.....	.....	
5	80	57	23	SE.	.....	.....	.....	.....	Sprinkling.
6	72	57	15	SW.	At intervals.....	.....	(*)	.....	
7	79	41	38	SE.	.....	.....	.....	.....	Sprinkling.
8	83	43	40	W.	.....	.....	.....	.....	
9	86	53	33	SE.	At intervals.....	.....	(*)	.....	Sprinkling.
10	80	51	29	SW.	.....	.....	.....	.....	
11	77	44	33	SE.	.....	.....	.....	.....	Sprinkling.
12	82	52	30	W.	.....	.....	.....	.....	
13	79	44	35	E.	.....	.....	.....	.....	Sprinkling.
14	84	44	40	SE.	.....	.....	.....	.....	
15	83	52	31	SE.	.....	.....	.....	.....	Sprinkling.
16	86	46	40	SE.	.....	.....	.....	.....	
17	89	53	36	SW.	.....	.....	.....	.....	Sprinkling.
18	86	50	36	SE.	At intervals.....	.....	.02	.....	
19	89	54	35	SE.	.....	.....	.....	.....	Thunderstorm; rain.
20	79	54	25	S.	{ During night. }		.45	.....	
21	79	55	24	E.	1.30 p. m.	2.30 p. m.	.....	.....	Thunderstorm; rain.
22	88	45	43	SE.	During night.....	.....	.16	.....	
23	86	51	35	SE.	.....	.....	.....	.....	Sprinkling.
24	89	50	39	S.	1 p. m. ...	1.30 p. m.	(*)	.....	
25	90	54	36	W.	12.40 p. m.	12.55 p. m.	.02	.....	{ Strong wind and thunder storms tearing down flagstaff and trees.
26	91	50	41	NW.	2.15 p. m.	2.35 p. m.			
27	87	49	38	NE.	.....	.....	.....	.....	Sprinkling.
28	83	44	39	SE.	.....	.....	.....	.....	
29	81	47	34	W.	.....	.....	.....	.....	Sprinkling.
30	80	41	39	SW.	.....	.....	.....	.....	
31	84	39	45	SE.	.....	.....	.....	.....	Sprinkling.
Mean.	83	48.50	35						

* Inappreciable.

AUGUST, 1890.

[Mean temperature 60°.59.]

1	82	52	30	SW.	.....	.....	.....	.....	Rain.
2	77	44	33	W.	.....	.....	.....	.....	
3	79	39	40	SE.	.....	.....	.....	.....	Sprinkling.
4	81	45	36	S.	.....	.....	.....	.....	
5	88	48	40	SE.	.....	.....	.....	.....	Sprinkling.
6	87	46	41	E.	.....	.....	.....	.....	
7	80	47	33	NW.	.....	.....	.....	.....	Sprinkling.
8	84	39	45	SE.	.....	.....	.....	.....	
9	84	50	34	NW.	7 p. m. ...	During night.	.12	.....	Sprinkling.
10	70	52	18	E.	7.30 a. m.	10 a. m.	.04	.....	

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

AUGUST, 1890—Continued.

[Mean temperature 60°.59.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
11	74	50	24	SE.	{ 1.25 p.m. 8.30 p.m.	2.15 p.m. During night.	.14 .24		Thunderstorm passing. Rain.
12	72	40	32	SW.					
13	78	42	36						
14	84	41	43	NW.	5.00 p. m.	6.00 p. m.	0.02		
15	74	48	26	NW. {	6.00 p. m.	8.20 p. m.	0.21 }		Rain.
16	74	45	29	SE. {	During night		0.09 }		Rain.
					5.00 p. m.	6.00 p. m.	0.04		
17	74	41	33	SW. {	10.15 a. m.	11.00 a. m.	(*) }		Thunder storm; temperature fell rapidly from 70° to 47°; high wind, rain and hail.
18	64	43	21	W.	1.30 p. m.	2.45 p. m.	0.23 }		Thunder at a distance.
19	64	36	28	SW. {	11.50 a. m.	12.20 p. m.	0.02 }		
					During night.	7.30 a. m.	0.29 }		
20	74	37	37	SE.	7.30 a. m.	9.00 a. m.	0.04 }		Rain.
21	83	41	42	S.	During night		0.02 }		
22	80	52	28	E.					
23	73	39	34	SE.					
24	65	37	28	W.					
25	70	37	33						
26	80	37	43						
27	81	40	41						
28	80	51	29		2:50 p. m.	3:10 p. m.	(*)		Sprinkling; thunderstorm passing in southwest direction.
29	85	43	42						
30	78	49	29		During night.		0.04		Rain.
31	75	50	25		During night.		0.23		Thunderstorm; rain.
Mean.	77.25	43.9	33.35						

SEPTEMBER, 1890.

[Mean temperature, 52°.58.]

1	74	47	27	SE.	During night.....		.02		Rain.
2	69	37	32	NW.					
3	71	31	40	SW.					Frost; sidewalks and fences covered.
4	75	36	39	SE.					
5	70	42	28	SW.	During night.....		0.17		Rain.
6	45	28	17	SW.	4.30 p. m.	5.30 p. m.	(*)	(*)	Snow; ground covered.
7	57	22	35	S.					
8	68	35	33	SE.					
9	71	30	41	S.					
10	72	30	42	SW.					
11	65	31	34	SE.	5.30 p. m.	6.20 p. m.	(*)	(*)	Snow.
12	65	20	45	SE.					
13	69	28	41						
14	70	43	27	S					
15	76	37	39	SE.					
16	77	41	36	W.					
17	79	41	38	SE.					
18	64	38	26	E.					
19	72	34	38	S.					
20	71	36	35	SW.					
21	72	31	41	W.					
22	71	33	38	SE.					
23	75	34	41	SE.					
24	75	34	41	S.					
25	71	35	36	E.					

* Inappreciable.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

SEPTEMBER, 1890—Continued.

[Mean temperature 52°.58.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
26	72	34	38	SW.	2 p. m.	2.20 p. m.	Inches. (*)		Sprinkling.
27	76	36	40	.....	.....	.....	.....	.....	
28	79	38	41	S.	.....	.....	.....	.....	
29	73	39	34	SE.	.....	.....	.....	.....	
30	64	46	18	SE.	.....	.....	.....	.....	
Mean...	70.26	34.90	35.36						

OCTOBER, 1890.

[Mean temperature, 38°.45.]

1	56	41	15	SE.	{ During night	.04	.....	{ Rain.
2	45	34	11	NW.	{ 3.25 p.m. 4.50 p.m.	.05	.....	
3	44	24	20	NW.	7 p. m. ... 5 p. m. ...	.30	.....	Rain.
4	42	19	23	E.	6.20 p. m. During night.	.15	1.5	Snow.
5	44	30	14	SE.	{ 11.30 a.m. { 2.30 p.m.	(*)	(*)	Snow.
6	46	30	16	SE.	During night	.04	.....	Rain.
7	44	36	8	SW.	During 10 a. m. ...	.06	(*)	Snow; melted as it fell.
8	40	25	15	SE.	night.	.....	.....	
9	33	20	13	E.	9 a. m. ... 6 p. m. ...	.04	(*)	Snow at intervals; melted as it fell.
10	31	23	8	W.	During night.	.....	.....	
11	45	22	23	SW.	 3.30 p.m.	.3	4	Snow.
12	34	28	6	SE.	8 a.m. ... During night.	.4	(*)	Snow; melted as it fell.
13	42	19	23	NW.	.....	.....	.....	
14	35	28	7	SE.	12 m. ... 1.30 p.m.	.15	1.00	Snow.
15	33	16	17	E.	During night	(*)	(*)	Snow.
16	45	24	21	S.	.....	.....	.....	
17	42	29	13	SW.	.....	.....	.....	
18	57	28	29	S.	.....	.....	.....	
19	50	38	12	SE.	11.30 a.m. 5.20 p.m.	.07	.....	Rain.
20	42	26	16	NE.	During night	.08	.....	
21	52	33	19	SE.	.....	.....	.....	
22	48	35	13	SE.	.....	.....	.....	
23	49	35	14	S.	.....	.....	.....	
24	56	33	23	SW.	.....	.....	.....	
25	59	26	33	S.	.....	.....	.....	
26	58	32	26	SE.	.....	.....	.....	
27	50	32	28	SE.	.....	.....	.....	
28	65	31	34	SW.	.....	.....	.....	
29	63	29	34	SE.	.....	.....	.....	
30	62	28	34	E.	.....	.....	.....	
31	60	28	32	W.	.....	.....	.....	
Mean.	47.8	20.1	19.35					

* Inappreciable.

† At intervals.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

NOVEMBER, 1890.

[Mean temperature 32°.75.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
							<i>Inches.</i>	<i>Inches.</i>	
1	56	25	31	SE.					
2	54	24	30	SW.					
3	58	28	30	S.					
4	56	38	18	SE.					
5	34	24	10	NE.	8 a. m.	4.30 p. m.	.08	.75	Snow.
6	23	14	9	E.					
7	24	2	22	SE.					
8	31	8	23	NW.	3.15 p. m.	5.30 p. m.	(*)	(*)	Snow.
9	32	22	12	SW.	9 a. m.	11 a. m.	.05	(*)	Snow; melted as it fell.
					11.45 a. m.	4 p. m.			
10	32	14	18	SE.					
11	33	24	9	E.	10.30 a. m.	4.15 p. m.	.12	1.02	Snow.
12	31	8	23	SE.					
13	30	20	10	SW.	4.15 p. m.	6 p. m.	.12	.9	Snow.
14	30	15	15	SE.	During night.		.12	1.0	Snow.
15	32	10	22	W.					
16	42	14	28	S.					
17	38	25	13	SW.					
18	40	25	15	SE.					
19	49	20	29	S.					
20	50	24	26	SE.					
21	44	18	26	E.					
22	49	23	26	S.					
23	45	23	22	SW.					
24	48	24	24	SE.					
25	47	17	30	SW.					
26	49	20	29	W.					
27	50	21	29	SE.					
28	48	19	29	E.					
29	47	25	22	SW.					
30	50	26	24	SW.					
Mean ..	48.50	20	27.15						

DECEMBER, 1890.

[Mean temperature 27°.72.]

1	45	24	21	SE.					
2	39	29	10	E.	During night.	4 p. m.	(*)	(*)	Snow.
3	32	20	12	NE.	9 a. m.	5.30 p. m.	.10	.50	Snow.
4	30	18	12	SE.	During night.		.18	2.50	Snow.
5	27	9	18	SW.					
6	30	6	24	W.					
7	25	2	23	SE.					
8	29	6	23	E.					
9	35	18	17	SW.					
10	37	23	14	SE.					
11	40	28	12	S.					
12	47	23	24	SE.					
13	37	28	9	E.					
14	37	26	11	SE.	During night.		.06	(*)	Snow.
15	33	22	11	SE.	During night, 11 a. m.		.05	(*)	Snow.
16	35	20	15	SW.					
17	37	13	24	W.					
18	42	15	27	SE.					
19	37	27	10	E.	During night.		.2	(*)	Snow, melted as it fell.
20	34	21	13	SE.					
21	28	18	10	S.	8.20 a. m.	2.10 p. m.	.05	0.2	

* Inappreciable.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890 to June 30, 1891—Continued.

DECEMBER, 1890—Continued.

[Mean temperature, 27°.72.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
							<i>Inches.</i>	<i>Inches.</i>	
22	35	24	11	S.	.....	.....	.....	.....	
23	37	22	15	SW.	.....	.....	.....	.....	
24	35	24	11	SW.	.....	.....	.....	.....	
25	35	27	8	E.	.....	.....	.....	.....	
26	36	24	12	SE.	.....	.....	.....	.....	
27	37	16	21	SE.	.....	.....	.....	.....	
28	40	20	20	SW.	.....	.....	.....	.....	
29	41	20	21	SE.	.....	.....	.....	.....	
30	36	23	13	NW.	10.20 a. m.	7.20 p. m.	.25	2.8	Snow.
31	32	23	9	W.	.....	.....	.....	.....	
Mean .	35.48	19.97	15.52						

JANUARY, 1891.

[Mean temperature, 20°.43.]

1	25	7	18	NW.	.....	.....	.....	.....	
2	27	18	9	SE.	.....	.....	.....	.....	
3	30	20	10	SE.	8.40 a. m.	4.20 p. m.	(*)	(*)	Snow.
4	32	18	14	E.	.....	.....	.....	.....	
5	37	16	21	E.	.....	.....	.....	.....	
6	39	21	18	SE.	4.10 p. m.	During night.	.06	.6	Snow.
7	25	9	16	SE.	.....	.....	.....	.....	
8	19	— 5	24	E.	.....	.....	.....	.....	
9	24	— 4	28	0	.....	.....	.....	.....	
10	19	— 4	23	E.	.....	.....	.....	.....	
11	21	— 1	22	SE.	During night.....	.....	(*)	Trace.	Snow.
12	26	3	23	E.	.....	.....	.....	.....	
13	32	10	22	SE.	.....	.....	.....	.....	
14	31	12	19	SE.	.....	.....	.....	.....	
15	25	10	15	NW.	.....	.....	.....	.....	
16	29	20	9	SE.	.....	.....	.....	.....	
17	37	14	23	SE.	.....	.....	.....	.....	
18	33	19	14	SE.	.....	.....	.....	.....	
19	37	23	14	SW.	.....	.....	.....	.....	
20	45	25	20	SW.	During night.....	.....	.04	.4	Snow.
21	31	15	16	SE.	.....	.....	.....	.....	
22	33	15	18	SE.	4.50 p. m.	During night.	.02	.2	Snow.
23	33	8	25	NW.	.....	.....	.....	.....	
24	36	16	20	SE.	.....	.....	.....	.....	
25	27	21	6	SE.	At intervals.....	.....	.04	0.6	Snow.
26	31	22	9	S.	9.20 a. m.	3.00 p. m.	.05	0.8	Snow.
27	30	15	15	SE.	.....	.....	.....	.....	
28	23	0	23	.....	During night.....	.....	.03	0.7	Snow.
29	26	9	17	.....	do.....	.....	.02	0.5	Snow.
30	25	15	10	SE.	do.....	.....	.02	0.2	Snow.
31	11	1	10	SE.	9.20 a. m.	6.00 p. m.	.20	3.3	Snow.
Mean ..	29	11.87	17.13						

* Inappreciable.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

FEBRUARY, 1891.

[Mean temperature 14°.25.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
1	7	-16	23	SE.	During night.	2.20 p.m.	<i>Inches.</i> .19	<i>Inches.</i> 3.4	Snow.
2	11	-22	33	SE.	.....	.....	.....	.....	
3	20	-2	22	N.	.....	.....	.....	.....	
4	27	4	23	NW.	.....	.....	.....	.....	
5	28	15	13	S.	.....	.....	.....	.....	
6	27	17	10	S.	.....	.....	.....	.....	
7	14	-2	16	SE.	During night.	9 a. m.	.08	1.2	Snow.
8	15	-12	27	E.	7 p. m.	.....	.....	.....	
9	12	-1	13	SE.	.....	During night.	.12	1.8	Snow.
10	19	7	12	SE.	.....	.....	.....	.....	
11	20	3	17	SW.	.....	.....	.....	.....	
12	23	16	7	W.	7 a. m.	5.10 p. m.	.12	1.2	Snow.
13	39	22	17	SW.	.....	.....	.....	.....	
14	35	28	7	SW.	At intervals.....	.....	.11	*1.1	Snow.
15	30	12	18	SE.	During night.....	.....	.06	9.-	Snow.
16	22	0	22	SE.	During night.....	.....	.55	9.6	Snow.
17	19	-9	28	W.	9 a. m.	4 p. m.	.26	3.5	Snow.
18	23	6	17	SE.	.....	.....	.....	.....	
19	25	-4	29	E.	10 a. m.	2 p. m.	(*)	(*)	Inappreciable.
20	22	8	14	SW.	.....	.....	.....	.....	
21	25	5	20	SE.	.....	.....	.....	.....	
22	33	18	15	E.	During night.	2.40 p.m.	.12	4.-	Snow.
23	40	33	7	W.	During night, at intervals.	.....	.09	*9.0	Snow; melted as it fell
24	33	1	32	SE.	During night.	11 a. m.	.02	4.0	Snow.
25	22	-3	25	SE.	.....	.....	.....	.....	
26	25	9	16	S.	.....	.....	.....	.....	
27	17	-5	22	SE.	During night	8.20 a. m.	.35	4.3	Snow.
28	27	10	17	NE.	.....	.....	.....	.....	
Mean ..	23.57	4.93	18.64						

MARCH, 1891.

[Mean temperature, 22°.17.]

1	33	4	29	NW.	At intervals .....	.....	.25	3.2	Snow.
2	7	-7	14	SE.	.....	.....	.....	.....	
3	27	-10	37	SE.	.....	.....	.....	.....	
4	26	10	16	W.	9 a. m.	.....	.22	2.4	Snow.
5	17	-9	26	E.	.....	During night.	.01	1.6	Snow.
6	16	-15	31	SE.	.....	.....	.....	.....	
7	22	-3	25	SE.	During night.....	.....	.12	1.4	Snow.
8	25	6	19	SE.	At intervals.....	.....	.02	2.7	Snow.
9	32	20	12	NW.	.....	.....	.....	.....	
10	30	10	20	NE.	.....	.....	.....	.....	
11	22	-9	31	E.	.....	.....	.....	.....	
12	30	6	24	SW.	.....	.....	.....	.....	
13	41	5	36	S.	.....	.....	.....	.....	
14	39	18	21	SW.	.....	.....	.....	.....	
15	46	24	22	SW.	.....	.....	.....	.....	
16	40	28	12	SE.	4 p. m.	During night.	.22	1.5	Snow.
17	37	21	16	SE.	.....	.....	.....	.....	
18	49	14	35	E.	8 a. m.	5 p. m.	.20	1.-	Hail and snow.

* Approximated.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

MARCH, 1891—Continued.

[Mean temperature, 22°.17.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
							<i>Inches.</i>	<i>Inches.</i>	
19	35	18	17	W.					
20	41	19	22	NW.	At intervals. *		.25	1.5	
21	40	27	13	SE.	10 a. m.	4 p. m.	.30	1.5	
22	40	10	30	E.					
23	30	19	11	NE.					
24	38	10	28	SE.					
25	44	9	35	E.	4 p. m.				
26	45	23	22	SE.	During night		.2	1.	
27	43	30	13	SE.	2.30 p. m.	4 p. m.	.1	(*)	Snow melted as it fell.
28	37	21	16	N.	At intervals.		.15	.5	Snow.
29	35	22	13	SW.					
30	38	16	22	SE.	During night		.10	.5	Snow.
31	29	6	23	SE.					
Mean..	33.35	11	22.30						

APRIL, 1891.

[Mean temperature 41°.]

1	32	6	26	SW.					
2	43	6	27	S.					
3	41	19	22	W.					
4	45	8	37	SE.					
5	54	18	36	SE.					
6	60	26	34	S.					
7	49	32	17	W.					
8	41	26	15	SE.					
9	43	20	23	SW.					
10	58	25	33	SE.					
11	60	30	30	SE.					
12	52	32	20	SW.					
13	57	27	30	E.					
14	59	29	30	S.	2 p. m.	4.50 p. m.	.02		Rain.
15	52	33	19	SE.	4 p. m.	5 p. m.	.06	(*)	{Snow and hail mixed; melted as it fell.
					During night		.05		
16	56	30	26	SW.					
17	60	26	34	SW.					
18	55	28	27	SE.					
19	52	36	16	W.					
20	57	32	19	E.					
21	54	28	26	SW.					
22	62	31	31	SE.					
23	69	38	31	S.					
24	65	43	22	SE.					
25	59	32	27	SE.	{ At intervals during night.		.03	(*)	Snow and rain mixed. Snow.
							.02	Trace	
26	52	21	31	NE.					
27	66	32	34	SE.					
28	68	38	30	SW.					
29	59	41	18	W.					
30	51	29	22	SE.					
Mean	54.6	27.4	26.73						

*Inappreciable.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

MAY, 1891.

[Mean temperature, 49°. 80.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maximum.	Minimum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
1	57	37	20	SE.	At intervals		Inches. .08	Inches.	Rain.
2	66	25	35	S.					
3	67	22	45	SW.					
4	73	33	40	S.					
5	78	43	35	S.					
6	78	45	33	SE.					
7	70	44	26	SW.	4 p. m.	4.30 p. m.	.06		Rain; thunderstorm passing.
8	49	34	15	NW.	During night		.04		Rain.
9	53	26	27	W.	11.50 a. m.	1 p. m.	.04		Rain.
10	63	25	38	SE.					
11	61	23	38	SE.					
12	70	30	40	SE.					
13	78	35	43	S.	During night		.03		
14	69	37	32	SW.					
15	68	39	29	SE.					
16	74	35	39	SE.	During night		.02		
17	72	44	28	W.	11 a. m.	11.30 a. m.	.02		Thunderstorm.
					1 p. m.	2.15 p. m.	.08		
					During night		.17		
18	65	37	28	SE.	8.30 a. m.	9 a. m.	(*)		
19	52	32	20	W.	8 a. m.	11 a. m.	.50	†.5	Snow; melted as it fell.
20	59	30	29	SE.	During night		.10	.1	Do.
21	54	30	24	SE.					
22	62	29	23	E.	During night		.08		Rain and hail.
23	59	39	20	NE.					
24	67	34	33	SE.	3.50 p. m.	5 p. m.	.14		Rain.
25	70	32	38	W.					
26	70	39	31	SW.					
27	70	40	30	SE.	5 p. m.	During night.	.10		Thunderstorm.
28	69	39	30	SW.	12.30 p. m.	6 p. m.	.41		
29	62	40	22	SE.	During night at intervals.		.17		
30	56	37	19	E.			.08		
31	63	35	28	SE.					
Mean..	65.10	34.50	30.60						

JUNE, 1891.

[Mean temperature 51°. 20.]

1	56	38	18	SE.	12.40 p. m.	1 20 p. m.	.11		Rain.
					6.50 p. m.	During night.	.55		
2	53	37	16	E.	At intervals		.13		
3	54	39	15	NW.	During night.	10.20 a. m.	.21		Rain and hail.
4	61	41	20	SW.	2.10 p. m.	4.20 p. m.	.12		
5	70	39	31	SW.	2.10 p. m.	3 p. m.	.08		
6	70	41	29	SE.	6.25 p. m.				
7	64	46	18	W.		During night.	.21		Rain.
8	69	32	37	E.	7.10 p. m.		.20		Rain turned into snow during night, which melted as it fell.
9	45	31	14	W.		1.20 p. m.	.08		Snow.
10	64	30	34	SW.	4.20 p. m.	5.10 p. m.	.02		
11	64	41	23	SE.	2.15 p. m.	3 p. m.	.04		
12	68	42	26	NW.	At intervals		.08		

* Inappreciable.

† At intervals.

Meteorological record Fort Yellowstone, Yellowstone National Park, Wyo., from July 1, 1890, to June 30, 1891—Continued.

JUNE, 1891—Continued.

[Mean temperature, 51°. 20.]

Date.	Self-registering thermometers.			General direction of the wind.	Precipitation.				Remarks.
	Maxi-mum.	Mini-mum.	Range.		Began.	Ended.	Quantity.	Depth of snow-fall.	
							<i>Inches.</i>	<i>Inches.</i>	
13	62	38	24	W.	{ During night.....		.49	.....	
14	58	37	21	NW.	{ 7 a m. 3 p.m.* ..		.01	.....	
15	59	37	22	SE.	1.20 p.m. 7 p.m....		.19	.....	
16	70	37	33	SE.	2.10 p.m. 4 p.m....		.01	.....	
17	78	40	38	SE.	During night.	2.30 p.m.	.07	.....	Rain and hail at intervals.
18	62	48	14	SE.	During night at intervals.			.....	
19	60	40	20	SE.		During night.	.08	.....	
20	56	38	18	SE.	At intervals.....		.02	.....	Snow and rain mixed.
21	67	37	30	E.				.....	
22	63	40	23	NW.				.....	
23	58	36	22	SW.				.....	
24	66	30	36	SE.				.....	
25	76	44	32	SE.	At intervals.....		.08	.....	Rain.
26	62	44	18	E.	11 a.m. 3 p.m....		.15	.....	Rain.
27	66	41	25	S.	At intervals.....		.12	.....	Rain.
28	64	38	26	SE.				.....	
29	71	34	37	SW.				.....	
30	85	45	40	SE.				.....	
Mean ..	63.70	38.70	25.00						

* At intervals.

R E P O R T
OF THE
ACTING SUPERINTENDENT OF THE YOSEMITE NATIONAL PARK.

CAMP NEAR WAWONA,
Mariposa County, Cal., August 31, 1891.

The SECRETARY OF THE INTERIOR:

SIR: In accordance with your letter of July 28, I have the honor to submit the following report of the condition of affairs and of the management of the Yosemite National Park since it has been under my supervision during the fiscal year ending June 30, 1891.

Soon after the department commander had designated Troop I, Fourth Cavalry, as the guard for the Yosemite National Park, I procured an order to visit the park for the purpose of examining the ground and selecting a suitable place for a camp.

I arrived here with the troop May 17, established the camp, reported by letter to the Secretary of the Interior for orders, instructions, and suggestions, and immediately commenced examining into the situation.

These duties were entirely new to me and I had no idea of what they were. I managed to procure a copy of the regulations of the Yosemite National Park, from which I learned that trespassing of stock or persons would not be permitted. I wrote to the Department for copies of these regulations. I also wrote to the War Department for copies of maps of Wheeler's survey of this section of California. In the meantime I purchased a small township map of the Park which was printed in San Francisco. This is very defective topographically, but I was enabled by it and such information as I could get from the old mountaineers to approximately locate the boundaries of the park.

The lands within the boundaries of this park have been used as a grazing ground by the cattle and sheep owners for many years, and in order to begin what in this country is called a "square deal" with them I wrote a letter to every stock owner whose name and address I could learn in middle and southern California, notifying them that it was my duty to keep all stock off this reservation, and asking them as law-abiding citizens to use due diligence towards keeping their stock away, thereby aiding me in the execution of the will of Congress. When at a later date I received the regulations of the park, I distributed them freely and inclosed them in letters to about twenty post-offices in the four adjacent counties, requesting the postmasters to tack them up in a conspicuous place in their respective post-offices.

The cattle owners have generally tried to observe the law, but there are many small holders living in the vicinity of the park who are too

poor to hire a herder, and whose old stock will drift up the various cañons leading into the park as the feed in the foothills gets poor. This stock has given some trouble this year, but most of the owners have told me that they would dispose of such stock before the snows melt next year.

The last days of May the sheep commenced their annual migrations to the mountain grazing grounds, and by the 10th of June there were fully 60,000 of them close to the southern and at least 30,000 near the western boundaries of the park. These sheep are owned in the San Joaquin Valley and on the coast. They are organized into bands of from 2,000 to 3,000, each band having a regular outfit of from three to five herders and their dogs, with pack animals as a supply train. These herders and many of the owners are foreigners—mostly Portuguese, with a few Chilians, French, and Mexicans. They have carried things with a high hand and have “bulldozed” the poor squatters among these mountains for years. It was no unusual thing for the herder to open the fence and let his sheep into the squatter’s small field, where they would eat up everything.

As these bands approached I kept patrols along the border with instructions to warn the chief herders that it was against the law to trespass upon the reservation. All of them knew just as well as we did about where the boundary lines were located, but I did not wish to take severe measures until a repeated or willful trespass was committed.

In one or two instances, where ignorance of the boundary was advanced as an excuse for trespass, the herders were directed to remove their sheep and not repeat the offense.

Townships, 4 south, 24, 25, and 26 east (see inclosed map), are so situated topographically that the sun melts the snow by the last of May, or much sooner than it melts on like elevations anywhere else in the Park. They can only be reached from the south. Even my patrols have to make a detour to the south of the Park limits to reach them. The sheep herders knew all this, but thought that I did not, so three or four bands moved into these townships and commenced grazing. This convinced me that I had to adopt some plan of action that would thoroughly frighten the owners as well as the herders, or my men and horses would be worn out by perpetually scouring these almost impassable mountains, and even then, as soon as our backs were turned the herds would be slipped in and grazed until another patrol came along.

I knew that any measures which I might adopt that would rid the mountains of these vandals would be popular, for they are hated by the inhabitants of these regions with a hatred that surpasses belief.

I knew that there was no penalty attached to a trespass upon this Park, but I also knew that the sheep men were not aware of this, or if they had any ideas upon the subject at all they were very vague and undefined and that decided action upon my part would settle the question in a very few days, and before they could recover from their surprise I would be master of the situation.

I sent Second Lieutenant Davis, Fourth Cavalry, with a large detail, into the townships above mentioned, with orders to warn all herders whom he might find trespassing to leave the limits of the Park, and if, after the lapse of sufficient time, he found any herds in the Park he had warned off to arrest the herders and dogs and bring them and their pack outfits to my camp, near Wawona. Lieutenant Davis complied with these orders, and brought into my camp four herders and their outfit. As good fortune would have it, a friend of some of these herders happened to be here and he telegraphed to one of the sheep-owners

what had occurred. I telegraphed for a deputy United States marshal and got this news into circulation. I knew that a deputy marshal would not be sent here, nor did I want him, as this was all for effect, and I did not want this thing to go beyond my control, which would have been the case if I had turned the prisoners over to a marshal. The owner of the sheep came, and I succeeded in having him propose to me to furnish bonds for the appearance of the men when needed. I accepted this proposition, and he secured the officials of the Fresno bank as sureties. The bond was written out after some sort of fashion and the men were informed that they were released and would probably not be required to go to San Francisco for trial, unless the sheep men gave more trouble, in which case I was determined to make a severe example of some one, and I had selected them as the victims.

In the meantime I had sent Lieutenant Davis back to the same country, and he arrested and brought in a Scotch owner and his outfit. The Scotchman had, what I was pleased to consider, a reasonable excuse, and I released him after taking the names and post-office address of his party, all of whom, except one, were well-to-do property-owners in San Joaquin Valley.

The United States district attorney for the northern district of California wrote and sent me a long opinion on the subject of trespass, in which, of course, he declared that no criminal action could lie under the law. This was all right and commendable in him, provided he had let matters rest at this point, but he had the substance of his opinion published in the San Francisco daily papers. This was a betrayal of official confidence for which there was no excuse whatever. It tended to weaken my influence among these mountains and damage the interests of the Government to that extent.

I had not asked him for an opinion, and had to go to a great deal of trouble to counteract the evil influence of its publication.

By the 25th of June the sheep question was pretty thoroughly settled, and the vast herds were headed for the valley.

There is a herd of sheep and one herd of cattle grazing on patented land on the south side of the Merced River, under the conditions prescribed by letter of the Secretary dated July 2, 1891.

Up to the 30th of June I had received no instructions whatever from the Department. Many questions affecting the varied interests invested in this Park were presented every day many of them had to be decided immediately. Some were referred to the Department, and others have to await a fixed policy.

In deciding those questions requiring immediate solution, I have been guided by my ideas of equity in each case, but I have it always understood that the present policy is only temporary and will probably be changed when the Secretary becomes familiar with the situation and has the time to prescribe a permanent rule of action upon general cases.

Among these general cases which have been presented to me and upon which I respectfully request a ruling by the Secretary are:

(1) A man has a patent for a timber claim of 160 acres and wishes to fall timber for the purpose of making boards and shingles; this patented claim is several miles within the boundaries of the Park. Question: Will he be permitted to cut down the trees on his patented claim for any purpose?

(2) Several years ago a man located and had duly recorded a claim on a mineral lead, or lode, and has worked the yearly assessments as required by United States statute law ever since. This claim is within the boundaries of the Park. In order that he may hold the claim the

law requires \$100 worth of labor expended upon it every year. Question: Can he expend the \$100 worth of labor upon such a claim as usual? And, also, can he use the timber growing upon such claim for the purpose of securing his shafts and tunnels?

In conformity with the newspaper accounts of the action of the Department in the Kawea Colony case, I have answered the above questions in the affirmative; but a ruling from the Department is requested, as that alone can give a permanent basis of action.

In order that the Secretary may become sufficiently informed of the situation here to enable him to make an intelligent report and recommendations to the Congress, I will describe the topography of the Yosemite National Park somewhat in detail, the roads and trails leading into and over it, the Indians and game living upon it, and the white settlements, claims, mineral and timber lands within its boundaries.

The meridian and parallel of latitude through Mount Diablo are taken as the lines of reference, the latter of which passes through the Park. Of the 42 townships which constitute the Park, 12 of them lie north of this line, the remaining 30 south of it.

The general trend of the summit of the Sierra Nevada Mountains is from the northwest to the southeast. The highest point within the park is Mount Lyell, 13,016 feet. Westward, and to a distance of from 15 to 20 miles from the summit, the country is rough, interspersed with bare peaks, intersected by deep and immense cañons, presenting to the eye a wild and savage appearance.

The principal water courses within the park are the Tuolumne, the Merced, and the South Fork of the Merced Rivers, with their numerous tributaries. The cañon of the Tuolumne, beginning in township 1 north, range 23 east, is impassable for about 30 miles. The cañon of the Merced, beginning in township 2 south, range 22 east—the well-known Yosemite Valley—surpasses description. The cañon of the South Fork of the Merced is deep, exceedingly rugged, but is passable at many points. The country between these streams is heavily wooded generally, and after getting out of the cañons has many features of the plateau and is passable. The tributaries of these streams have their sources well up toward the top of these plateaus, where the water percolates through the soil and gradually collects in comparatively level places, which are covered with luxuriant grass. These levels vary in extent from a few square feet to 100 acres, forming beautiful meadows set in the most magnificent forests in America.

The wagon roads which enter this park are three in number. They are all toll roads, and are owned by incorporated companies.

The only road entering from the south is the best and by far is of the greatest importance. Nearly all of the travel to the Yosemite Valley passes over this road. Stages pass over it every day during the season of travel, and it is kept in excellent repair. It leads from Raymond, a railroad station, to the Yosemite Valley, and traverses the park for 26 miles. It is owned by the Yosemite Stage and Turnpike Company.

There are two roads which enter the park from the west, the most southerly being the road from Coulterville to the Yosemite Valley. It is in very good repair and traverses about 25 miles of the park. It is known as the Coulterville and Yosemite Turnpike, and is principally owned by Dr. J. T. McLean, of Alameda, Cal.

The remaining road enters the park in township 1 south, range 19 east, and leads from Milton, a railroad station to the Yosemite Valley. It is kept in fair repair. It is known as the Big Oak Flat road.

A road of great importance to the troops guarding this park leaves the Big Oak Flat road about 5 miles after the latter enters the park, and traverses the entire park from west to east south of the Tuolumne River, finally crossing this river at Tuolumne Meadows, and leaving the park near the southern line of township 1 north, 24 east. It was built 8 or 10 years ago, by a Boston Mining Company, to enable them to bring machinery to their mines in the vicinity of Tioga, and also to haul ore to the railroad. The mines have not been worked for the past 2 or 3 years, and the road has not been repaired during that time. A number of trees have fallen across it, and in places it is badly washed, but it makes a good mounted trail, and as such is of much importance. This is known as the Big Oak Flat and Tioga road. Recently I passed over this road from the crossing of the Tuolumne to its western terminus.

The most important trail through this park is known as the Mono trail, and commences at Wawona, and after winding up the side of the cañon of the South Fork of the Merced takes a northeasterly course, crossing the Merced River just above the Nevada Falls; thence, after heading many tributaries of this latter river, drops over the divide between it and the Tuolumne, crossing the latter at Tuolumne Meadows, and taking an easterly course, passes the summit through the Mono Pass or what is locally known as Bloody Cañon.

The Virginia trail comes down through townships 2 and 1 north, range 24 east, to the Tuolumne River at the lower end of the meadows. There is also a trail from Mount Conness to the Tuolumne Meadows.

The last trail worth noting enters the park from the head waters of Bull Creek, and reaches the Merced River just about where the western boundary of the park crosses it. It then passes up the river until it joins the Coulterville and Yosemite Valley road where the latter enters the foot of Yosemite Valley. There is a very indifferent road running from Mariposa to Hite's Cove, which is situated in township 3 south, range 19 east. The road runs diagonally through township 4 south, 19 east, to the southwest. The grade is exceedingly heavy and difficult. It is of no importance to this park.

There are several other trails of less importance that I am searching out and blazing to preserve them. They facilitate communication between different points, and their preservation is necessary to aid more rapid policing of the park. Since the stock will not be permitted to graze in the park hereafter, they will soon become obliterated and lost, unless measures are immediately taken to preserve them. If once lost they can only be recovered again by infinite toil.

There are about 35 Indians living within the boundaries of this park. They are the remnants of the Yosemite tribe, and have inhabited the Yosemite Valley and neighboring country longer than their traditions go back. They dress similarly to the whites, and some of them are quite intelligent. In summer they gain a livelihood by fishing, chopping wood, putting up hay, washing, and laboring about the hotels. In winter they hunt and do placer mining and such odd jobs as they can get.

Like all of their kind, they, with but few exceptions, will get drunk whenever they can get the liquor, but they are more steadfast than the white man, in that they will never betray the man who gets the liquor for them.

They have petitioned the Congress for an appropriation of \$1,000,000. But if left to themselves I can not see how this money would make them happier or improve their condition. A few designing whites

would have the most of it in a short time, and it would beget homicide and crime among the Indians themselves.

The principal game in the park consists of bear, deer, grouse, and quail. Neither variety is very plentiful. The sheep have been the curse of these mountains. As they graze in masses, they trample the nests of the quail and grouse to pieces, destroy the eggs, or crush the young before they are able to fly. They separate the young deer from the mother and cause its death from lack of nourishment. As the autumn approaches, the herds retire from the high mountains towards their winter grazing grounds, and the herders set fire to and burn over the forests in their rear so the rays of the sun can penetrate to and melt the snows, thus giving an early and abundant crop of grass the next season. I have effectually stopped such vandalism within this park, and now the possibilities are that it will be alive with game in a few years.

This report would be incomplete did I not note the kinds and varieties of timbers growing upon this park. But as my time is very limited I can but note the principal ones and the approximate elevations of their indigenous growth.

If I have the honor of being the superintendent of the park next year I hope to be able to make a more extended report upon this subject. I am devoting some time to the study of that wonderful tree the *Sequoia gigantea*, and have selected numerous places where I intend to plant the young sprout next spring.

Of the pines there are about nine varieties, and they grow at all elevations from 2,500 to 11,000 feet above sea level; the tamarack growing at the highest altitude of any other of the forest trees.

The cedar grows to great dimensions at from 4,000 to 7,000 feet.

There are about two varieties of spruce, and they grow at from 5,500 to 8,000 altitude.

There are about three varieties of the fir, growing at altitudes from 7,000 to 9,000 feet.

I have seen but few specimens of the juniper, which grows at an altitude of about 8,000 feet.

The black and live oak grow at 4,000 feet in the valley only. There are a few cottonwood and Balm of Gilead at 4,000 feet.

A few dwarfed quaking aspen grow at an altitude of about 5,000 to 6,000 feet.

The most wonderful natural growth upon this earth is the *Sequoia gigantea*, of which there are two small groves within this park. Their indigenous growth seems to be in this latitude at elevations between 5,500 and 7,000 feet.

The private landed interests within the boundaries of this park are probably much greater than the Congress knew of when so much area was included within its limits. I have succeeded by various means in getting data for an approximate statement upon this subject. It is questions growing out of these interests that are constantly arising and demand a great deal of thought and no little firmness on the part of the superintendent of this Yosemite National Park.

I will describe these interests by townships, beginning with the southern township of the western tier:

Township 4 south, 19 east: There are some mining claims in the northern portion, the number not known. A very little timber in the southeast corner, but the township is essentially an agricultural country. There are farms upon this township that have been under cultivation for nearly 30 years. The assessor's rolls in Mariposa show that 5,440 acres have been taken up. The Stockton land office shows that about 3,040 acres have been homesteaded, patented, or paid out.

Township 3 south, range 19 east: This is essentially a mining district. There is no timber upon it and no natural curiosities to preserve. There are several patented

mines and many other mining claims in this township. The assessor's rolls show that taxes are paid on 520 acres. The Stockton land office shows one homesteaded, paid out, or patented claim—160 acres.

Township 2 south, range 19 east: The southern third of this township has no timber, but is a rough mineral district; the rest of the township is heavily timbered, with very little agricultural land. There are about 81 claims, consisting of nearly 12,960 acres homesteaded, patented, or paid out. A little agricultural land.

Township 1 south, range 19 east: This township is heavily timbered. There are about 32 claims, or 5,120 acres, homesteaded, patented, or paid out.

Township 1 north, range 19 east: A rough, heavily timbered township. About 20 claims, or 3,200 acres, homesteaded, patented, or paid out.

Township 2 north, range 19 east: Same as above; about 21 claims, or 3,360 acres, have been homesteaded, patented, or paid out. Lake Eleanor is situated in the southern part of this township. This lake has already been set aside as a Government reservation under the irrigating act.

Township 4 south, range 20 east: The eastern half well timbered, the rest is rough; no agricultural land. Assessor's rolls show about 1,100 acres taken up. Stockton land office shows 1 claim, 160 acres, homesteaded, patented, or paid out.

Township 3 south, 20 east: Heavily timbered. A little agricultural land. There are about 20 claims, or 3,200 acres, homesteaded, patented, or paid out. The well-improved Hennessy ranch, now belonging to A. H. Ward, is in this township.

Township 2 south, 20 east: Heavily timbered; but little agricultural land. There are about forty-eight claims, or 7,680 acres, homesteaded, patented, or paid out.

Township 1 south, 20 east: Heavily timbered; no agricultural land. There are about thirty-five claims, or 5,600 acres, homesteaded, patented, or paid out.

Township 1 north, 20 east: Very mountainous and rough; well timbered. There are about eighteen claims, or 2,280 acres, homesteaded, patented, or paid out.

Township 2 north, 20 east: Western half timbered; eastern half rough and rocky. Only one claim of about 40 acres homesteaded, patented, or paid out.

Township 4 south, 21 east: Heavily timbered; a very little agricultural land. There are about 5,120 acres taken up on the assessor's rolls. Stockton land office notes about 22 claims, or 3,440 acres, either homesteaded, patented, or paid out.

Township 3 south, 21 east: Heavily timbered; but little agricultural land. Assessor's rolls show 4,440 acres taken up. Stockton land office shows about eighteen claims, or 2,880 acres, homesteaded, patented, or paid out. Part of this township is in the State grant of the Yosemite Valley.

Township 2 south, 21 east: Most of this township is in the State grant of the Yosemite Valley. There is one claim, 160 acres, homesteaded, patented, or paid out. The portion in the park is heavily timbered.

Township 1 south, 21 east: Heavily timbered. There are about two claims of 280 acres homesteaded, patented, or paid out.

Township 1 north, 21 east: South of the Tuolumne River the timber is heavy, but the part lying north of this river is barren, rocky, and mountainous. There is one homestead of about 80 acres. All the country north of the Tuolumne River, including range 21 east and as far east as the summit of the Sierra Nevada Mountains, may be described as very barren, exceedingly rough and mountainous, with no agricultural land except in the Tuolumne Meadows, and no timber except in the lower course of the cañons running into the river, where nothing but tamarack grows. The country is about impassable.

Township 4 south, 22 east: Heavily timbered; south half very rough and mountainous. There is one claim, 160 acres, patented or paid out.

Township 3 south, 22 east: Heavily timbered. There are three claims, or 480 acres, homesteaded, patented, or paid out.

Townships 1 and 2 south, 22 east: Most of the latter is in the State Yosemite Valley grant. The remainder and township 1 south are heavily timbered. No entries in either.

Township 4 south, 23 east: Heavily timbered. There are four claims, or 640 acres, homesteaded, patented, or paid out.

Townships 3, 2, and 1 south, 23 east: All very mountainous, rough, and barren. The timber growth is tamarack. There is one claim of 160 acres in township 2 south, and two claims, or 320 acres, in township 1 south.

Township 4 south, 24 east: Heavily timbered in south half; the rest is rough and mountainous; tamarack grows in the cañons. No entries.

Townships 3, 2, and 1 south, 24 east: Very rough and mountainous. But little timber, except in the cañons. Two claims in township 1 south, 320 acres, homesteaded, patented, or paid out.

Townships 4, 3, 2, and 1 south, range 25 east: Townships 4 and 3 well timbered; all four townships are essentially mining districts. I have not been able to learn how many claims have been located or patented.

Townships 4 and 3, range 26 east, are well timbered, but they are full of mining claims.

By following the above description of the park by townships it will be seen that the heavy timber, as a rule, lies from 15 to 20 miles west of the summit and runs parallel to it with a width of from 15 to 20 miles. About 3 years ago, when the railroad was being built in this direction, the people plastered these mountains with timber claims, and the result is that within the limits of this Yosemite National Park about 55,000 acres have been homesteaded, patented, or paid out.

RECOMMENDATIONS.

The boundary lines are not well marked. They are simply neighborhood traditions. Thus far I have not had time to hunt the township corners or in any manner mark the boundaries, even if I could find them.

An appropriation for the purpose of establishing these boundaries is respectfully recommended.

I have devoted much time and thought to the subject of the boundaries of this national park, and after a careful examination of the ground I find that there are natural boundaries for the most of it. I hope I will not be considered over-officious if I state and recommend what, in my judgment, are the best boundaries.

The Tuolumne River forms a natural northern boundary following the Mount Lyell Fork to its source, and thence to the summit of Mount Lyell; thence along the dividing line between Mariposa and Fresno Counties to its intersection of the dividing line between townships 4 south, ranges 23 and 24 east; thence west until this western line intersects the south fork of the Merced River; thence down the south fork of the Merced River to its junction with the Merced River; thence down the Merced River to its intersection of the western boundary line of township 3 south, range 19 east; thence north along this western boundary line of township 3 south, range 19 east, until said north line intersects the Tuolumne River.

Such a boundary line will include all the natural wonders, excluding none whatever. It excludes about all the mining country on the east and nearly all in the southwest. It takes in all the immense forests worth mentioning that is now within the park. It excludes all the old agricultural districts in township 4 south, range 19 east, and it excludes a barren, rocky waste north of the Tuolumne River. It excludes no timber, the shade of which would keep the snows from melting until late in the season, and it includes the only portion of country that furnishes a reason for a national park.

I would also recommend that the Congress pass a law making it a misdemeanor for the violation of Rules 3, 4, 5, 6, and 7 of the Yosemite National Park, with the maximum fine fixed at \$1,000 and the maximum imprisonment fixed at 6 months, or both, at the will of the court of competent jurisdiction.

The limited time in which I have to write this report necessarily excludes smaller details, which I will forward in a supplemental report at the end of the season. I have mentioned only those subjects which I conceived would be of aid to the Secretary in his annual report.

Very respectfully, your obedient servant,

A. E. WOOD,
Captain Fourth Cavalry,
Acting Superintendent Yosemite National Park.

REPORT

OF THE

ACTING SUPERINTENDENT OF THE SEQUOIA NATIONAL PARK.

CAMP AT MINERAL KING, CALIFORNIA,
August 31, 1891.

The SECRETARY OF THE INTERIOR,
Washington, D. C.:

SIR: I have the honor to submit the following report:

On May 14 my troop (K, Fourth Cavalry) left the Presidio of San Francisco by rail for Exeter station, en route to the Sequoia National Park. On the 16th it encamped at a place on the Mineral King road, known as the "Summit," about 7 miles from the park, where it was obliged to remain till June 7, on account of the bad state of the road ahead. This road runs through township 17 south, range 30 east, to the Mineral King mining district, in township 17 south, range 31 east, where it terminates abruptly at the foot of a high range of mountains, over which no road could be constructed without excessive cost and that would be impassable on account of snow for about 9 months in the year. This road lies on the south side of the main Kaweah River as far as a point about 1 mile east of the summit, where it crosses the East Fork by a bridge. It then runs along the north side of the cañon of the East Fork at some distance above the river until it reaches the Mineral King district, when it approaches the river. The distance from the bridge to Mineral King is about 24 miles and the ascent about 6,500 feet. In many places the road is very steep and rocky for long distances. It was badly washed by rains and melting snow, and in the last 6 miles was impassable on account of snow. The county had appropriated some money to put this road in repair and two men were working on it. I had soldiers help them, but several storms did so much damage, that a great part of the work had to be done again. It was not till early in June that the road was practicable for wagons, and on the 8th I arrived at Mineral King. The upper part of the cañon was yet covered by several feet of snow, and it was not till June 29 that the command reached its present camp.

I was compelled to come here, as there was no place in the park, the road being cut along a steep hillside, where so many men and horses could camp. At the summit the grass was getting dry and the water supply gave out. The land was owned by private individuals and the weather during July and August is excessively hot, the thermometer usually rising higher than 100° every day. At Mineral King there is good grass, the nights are always cool and frequently frosty, and the

men are healthier and have more vigor for the hard work of mountain climbing. The altitude of the camp is about 8,300 feet.

The only other road leading into the park is the one built by the Kaweah Colony to the colony sawmill. To reach it I should have had to cross the Kaweah River just below the mouth of the North Fork, and then the latter stream. There are no bridges and the main river was not fordable till about July 15 and the North Fork until about July 1. The colonists have a small ferryboat at the crossing of the main stream, fastened by ropes and pulleys to a wire cable above the water, and run by the pressure of the current striking the boat obliquely. This boat is long enough for four-horse teams, but it would have been useless to take advantage of it, as there was no ferry over the North Fork.

I was authorized by the commanding general, Department of California, to hire a guide for one month, and employed him on July 8. Owing to the time necessary to travel over such a rough country, the whole month was employed almost wholly in the park proper, though I was very anxious to learn by observation something of the adjacent country to the north, east and south. I was not able to go all over the park myself, owing to the action taken by the people working at Atwell's Mill. I have, however, drawn a small crude map, approximately correct, of so much of the country as I have seen, which will give an idea of the general direction of the principal mountain ranges, though not of their spurs, inequalities, and roughness.

The different branches of the Kaweah River, except the North Fork head on the western slope of a range of mountains 12,000 to 13,000 feet high, whose general direction is north and south. The top of this range is steep, bare, and rugged rock, broken and irregular, and passable in but very few places. It is a high wall that completely separates the country on one side from that on the other. Projecting from it in a westerly direction are the high ranges that separate the Marble, Middle, East, and South Forks from each other. Northeast of the park a ridge extends eastward from it to Mount Whitney, on the main divide of the Sierra Nevadas. To the south of this ridge are the headwaters of Kern River, to the north those of Kings River. Mount Whitney is said to be the highest in the United States, and the mountains about the headwaters of Kern, Kings, and Kaweah Rivers to be the highest and roughest in the whole Sierra Nevada range. The only tolerably level ground of any extent in the park is in the two southern townships, where there are probably 300 to 400 acres of it. This portion of the park is known as the Tuohey Meadows, and also as the Hockett Meadows, though particular portions have special names, as Zimmerman's Meadows, Warren's Horse Camp, etc., but all lying in the Tuohey or Hockett Meadows. These meadows are in a flat basin at the head of the South Fork, at an elevation of little more than 9,000 feet and almost completely surrounded by mountains. The snow lies here till late and the ground was very boggy until about July 10. It is partly timbered, the open spaces having small lakes, streams, and grassy bottoms. It has for years been a favorite grazing ground for sheep and cattle, and the streams have been stocked with trout. It is one of the most picturesque spots in the park, and a delightful camping place during the latter part of July and August. The only other spot of special interest that I have visited is the Giant Forest. This covers four or five sections in the southwest corner of township 15 south, range 30 east, and northwest corner of township 16 south, range 30 east. It is in its natural state except for

a number of cabins that have been built, and some ground fenced for cattle.

One tree, measured by Lieutenant Nolan, was $34\frac{1}{2}$ feet in diameter and about 370 feet high. In other groves the sequoia trees are a very small proportion of the whole number, being scattered here and there among spruce, fir, and pine trees. In the Giant Forest, while the sequoias are still greatly in the majority, they grow more thickly and to a greater size than anywhere else in the park and, travelers say, than anywhere else in the State. Lieutenant Nolan, who has visited the General Grant Park, says there is no tree there that compares with some that grow in the Giant Forest. The tree known as General Grant has had the earth washed away near its roots, and 3 or 4 feet from the ground it doubtless measures more than any in the Giant Forest, but the main trunk is smaller. The conditions now existing in the Giant Forest seem to have been very favorable for its growth and preservation. The ground is uneven, and the growth of pines and other trees on the heights and around the big trees have kept the winds from breaking off their tops, have protected their trunks from the action of the weather, and kept the ground moist and of an equable temperature.

The safety of the big trees doubtless depends to a certain extent on the preservation of these others. The Government, at whatever cost, should never allow any private individual or corporation to have control of any portion of this forest, nor allow any timber to be cut in it. As it stands now, and as it ought to remain, it is probably the most remarkable forest of its kind in the world. The more one sees of it the grander it seems. To despoil it would be a desecration.

There are also big trees in other portions of the park, notably on the mountain slopes both north and south of the East Fork, in township 17 south, range 30 east, and south of the South Fork, in township 18 south, range 30 east, and a few elsewhere. Some of those north of the East Fork are on the Atwell estate, through which the Mineral King road passes, but finer trees are found farther west, in a more inaccessible locality. In no other grove, however, do they obtain the size of those in the Giant Forest, nor grow so thickly. A number have been cut down in the vicinity of Atwell's Mill, and the value of the property consequently lessened.

The mountain range south of the two southern townships is lower than the next one to the north (the one between the South and East Forks), and the country beyond is generally lower than that in the park. I was unable to get into those townships during the month of June, owing to high water on the trail up the South Fork and snow on the mountains south of the East Fork. I was surprised in the latter part of June by the appearance of two herds of sheep in the valley of the East Fork that had come over the snow on the mountains between the South and East Forks. They had worked up from the south and found too much snow in the southern townships to remain there, and had come onto the East Fork. I mentioned my action concerning them in my last letter, as also in the matter of two herds of cattle that came up the wagon road about July 1.

The country northwest of the Giant Forest is quite low, comparatively speaking, and consequently free from snow early in the season. The high water in the main Kaweah River and North Fork kept any party of troops out of that country till after the middle of July, as the only practicable route to reach it is by the Colony road. There is no known trail across the Middle Fork above the mouth of the Marble Fork, nor up the mountains, if a crossing existed. The only other way

would have been to have gone nearly to Visalia and then taken the road to Camp Badger, but I had not enough pack mules to spare to carry sufficient forage for such a detachment. I expected to find sheep and cattle grazing in that part of the park, but Lieutenant Nolan reports not more than a dozen cattle near the Colony sawmill and in the Giant Forest, and that only one herd of sheep had passed through the northern part of the park, and that it had gone through hurriedly. In the Hockett Meadows a few cattle, the property of Mr. Blossom, who lives on the South Fork, near Three Rivers, are constantly giving trouble, straying back as fast as they are driven out. With the above exceptions there has been no trouble from cattle or sheep in the Sequoia Park. On the other hand, General Grant Park, from its isolated position and being surrounded on all sides by loose cattle, is particularly liable to be overrun with them. The owners have been notified to keep their cattle out, but I imagine it is having very little effect.

At the Colony sawmill a detachment is stationed to protect the Giant Forest and patrol the northern portion of the park and General Grant Park. By the nearest route the sawmill is 50 miles distant from here.

At the foot of Big Red Hill, 6 miles above Three Rivers and 26 miles from here, is another detachment. At this camp a trail crosses the river that leads to the Giant Forest, and the detachment watches that trail and the road to see that no cattle are driven into the park. It also patrols the road in the park. In the Hockett Meadow is another detachment, about 18 miles from here, guarding that portion. Men are now at work trying to make a shorter route to this camp, on the mountainside south of the East Fork, and then from that camp to Big Red Hill. On the headwaters of the Middle Fork several hundred cattle and probably 5,000 sheep are grazing. They are just north of the camp at Mineral King and patrols watch them to see that they do not encroach on the eastern side of the park. Eastward, in the Kern River valley, there are sheep by thousands that formerly grazed in the park. The camp at Mineral King is necessary to guard the eastern line of the park, for as soon as cold weather sets in the sheep-herders will drive the sheep back through it, as has been their custom, unless prevented. There will then also be danger from fires, as the herders, often through carelessness, let the dry brush and grass catch fire before they leave. This year it is thought they will do so out of spite.

The Mineral King district is also a favorite resort for people to stay in camp, and a base for hunting and fishing parties during the summer months. For about 6 weeks over 300 people have been camped within a mile of my command. In township 17 south, range 30 east, James W. Griffis and a few persons, formerly members of the Kaweah colony, are living in section 7, Mrs. Maria W. Eylie in section 8, and Mr. Jacob H. Tronger in section 20. They are all farming, and I am informed by Mr. Andrew Cauldwell, special agent General Land Office, that they are living on their own homesteads. The colony people live on land now owned, or formerly owned, by William Riddell. The Atwell estate, in the same township, has been rented by Mr. Irwin Bernard, a member of the Kaweah colony, who is cutting timber on it, and employs members of the colony only. With these exceptions, no land to which any one has a claim or title is occupied. A man is hauling posts cut some years ago from land just west of the Atwell estate, that I am informed was bought by him from John E. Miller, who got it for cash from the Government. I get my information concerning land claimed or owned by any one from Mr. Andrew Cauldwell, who, I understand, has furnished the same information to the Department.

At the mouth of Marble Fork a single man by the name of Wolverton is living, and has cultivated a small piece of ground. Another, by the name of Bonneview, is similarly on the Middle Fork, just within the western line of the park. Lieutenant Nolan passed by the land they occupy, and mentions them in his report. Mr. Cauldwell knows of their occupancy, and says they have no claim whatever to the land.

Since commencing this paper I have received instructions from the Interior Department to make a report concerning patented lands, this having been brought about by objections to and inquiries concerning the conduct of the troops toward the people employed in cutting timber at Atwell's Mill. The foregoing is all the information I have concerning other patented lands. As the action of the Department and the troops concerning the Atwell Mill property may cause discussion hereafter, I shall make it the subject of a special report.

The valuable game in the park consists of deer, bear, mountain grouse, and California quail. Besides there are varieties of other animals, such as chipmunks, gray squirrels, ground squirrels, groundhogs, panthers, wildcats, coyotes, etc. In the rocky valleys, at low altitudes, are quantities of rattlesnakes.

The streams in the Hockett Meadows have been stocked with trout, and these fish are also found in the Marble Fork near its mouth, and a few miles below it in the Middle Fork. The streams are too swift and the falls too high for fish to ascend them any distance into the park. North and west of the Giant Forest the Marble Fork is a beautiful stream, in which I think trout would thrive. The headwaters of the East Fork, at Mineral King, have been stocked, and the trout propagate rapidly, but this is not in the park, and the waters are fished so much that the number is kept down.

Owing to the high altitude of most of the land in the park and deep snows in winter deer can live in only a few places in it in that season, and are forced into the foothills to the west. In the summer they go eastward and many through it. The same applies to grouse and quail. Although there is a State law against killing deer for 2 years, this is not a complete protection. I have heard of deer being killed in this vicinity this summer, and numbers will probably be killed in the foothills this winter. After the law referred to expires the deer belonging to the park will have very little protection. A few deer have usually been found in the winter just within the park in the valleys of the Middle, East, and South Forks. Some years ago one of their principal ranges was about the headwaters of the Middle Fork, not in the park. The cattlemen and sheep herders have now made them very scarce there. Any one interested in game can not help wishing they could be better protected. For this purpose, if for no other, I should recommend that townships 15, 16, and 17 south, range 31 east, be added to the park. The mountain range in which the East and Middle Forks head would then inclose the park on that side and form a barrier that would to a great extent protect it, and materially lighten the labor of the guardians of the park on the east side. It would also to a great extent stop the travel through the park of landowners and cattlemen with cattle to their land now lying along the eastern boundary and avoid many occasions for dispute. It would also lessen the danger of destruction of many valuable trees from fire.

At Redwood Meadows, near the head of the Middle Fork, is a small grove of big trees. As long as land is owned by individuals in the townships I have mentioned they will insist, on account of the difficulty in reaching it in other ways, on using the Mineral King road and trails

through the park. I understand from Mr. Cauldwell that very little land is owned in these townships. In the Mineral King district, in township 17 south, range 31 east, are a number of mines, none of which have ever paid for working them, and are not worked now except a few to a very limited extent, and principally only enough to keep the owners from losing their claims.

For the further preservation of game, and to keep it from becoming a nuisance to the settlers in winter, it would be well to extend the park westward, so as to take in all the land east of the North and South Forks. A post at Three Rivers could then watch the principal avenues to all parts of the park from the west. As this would include much land now taken up I suppose this extension would not be favorably considered. By taking in the eastern halves of townships 17 and 18 south, range 29 east, but little private land would be included, and the object of an extension to a great extent attained.

The Mineral King district is a great resort in summer for people from the Lower Kaweah Valley about Visalia and Tulare. As in the case of the troops, it is about the only camping place accessible to wagons that they can find. During July and August the heat of the valley is intense, and made more unbearable by the moisture from irrigating ditches and green vegetation. A daily temperature of from 102° to 106° or higher is the rule.

The bracing atmosphere of the mountains is of inestimable value to delicate women and children, and many men, some of them too poor to send their families to the seashore or elsewhere, have been in the habit of sending them to Mineral King. Should this district be annexed to the park, the privilege of letting them camp here as formerly, under proper restrictions, ought not, from a humane point of view, be denied them.

As there is no place in the park for troops to camp, either in summer or winter, some provision should be made to remedy this. If the Mineral King district be annexed, a summer camp will be provided, but troops must leave it by the 1st of October at the latest, when it is still too early to leave the park unguarded. There is then no place to go nearer than the foot of Big Red Hill, about 6 miles above Three Rivers, and outside the park.

All the land along the main river from the bridge westward is owned by private parties, and it is only by courtesy that my command will have a place to camp when it leaves here, as it will have to do in a few weeks. If the park be enlarged, a winter station must be provided. It should be of sufficient extent to permit the troops to be properly trained, and should be a supply depot during the summer. The land should either be bought or leased. The most suitable place I have seen is along the main Kaweah, from one-half a mile to 1½ miles below Three Rivers. Next year the favor by which troops were permitted to camp on private land before the park could be entered, and again after summer was over, may not be granted.

As I have implied, an extension of the park eastward would stop considerable travel over the Mineral King road. I was under the impression that this was a county road, chartered by the State, and that I incurred considerable risk in preventing cattle from being driven over it. Mr. Cauldwell, however, informs me that it was built by the miners of the Mineral King district about a dozen years ago, on public land, to take in machinery and carry out ore. After the mining excitement subsided, it was made a toll road by the mining company that owned it, but failed to pay expenses. It was transferred once or twice and

finally bought by Tulare County for \$1,500 or \$2,000, and the county has no title to it.

Considerable work will always be necessary in the spring of the year to make this road passable. It is not probable the county will expend any money on it hereafter, and if soldiers must repair it, some way should be provided for their compensation.

There has been talk of the propriety of further extending the park to the eastward to the main divide of the Sierra Nevada range; also some distance farther to the south and northward, to take in King River Cañon and Tehepatee Valley, or even to the Yosemite. I have had no time to explore the country to the south, about the heads of the Tule River nor the Kern River or King River valleys. I wished to go to Mount Whitney, at the head of Kern River, but the round trip would take 10 days, and I was informed the country had been so overrun by sheep that I could find no free pasturage for horses and pack animals. The same lack of feed would prevent a trip to Kings River and to any distance down the Tule. Many tourists now go to Mount Whitney, and after the Giant Forest is more generally known it will be about the only other attraction in this section, except the Kings River Cañon and Tehepatee, which I understand furnish scenery equal, if not superior, to that of the Yosemite. But aside from objects of interest, the prosperity of the population living in the valley between the Sierra Nevadas and Coast Range depend upon the preservation of the timber and brushwood in the mountains, as is well known. I have stated in a former report that brushwood covers the lower slopes and foothills to an altitude of about 5,500 feet, where the timber commences and extends to between 10,000 and 11,000 feet wherever there is enough soil to support the trees. The brush and timber both assist in holding back the snow and preventing disastrous snow slides, and also by their shade in keeping the snow from melting too fast in the spring, thus preventing dangerous floods and keeping up a steady water supply till late in the season.

Sheep destroy much of this brush, and the herders often set fire to it in the fall to destroy it, as the ground will furnish a good crop of grass next season. The best way to secure the safety of the brush and timber is for the Government to take charge of the country and guard it, whether it be called a park or not. Of course as the State is specially interested in this matter it would be proper for the State to attend to it, but as so many local interests would be involved the State might defer proper action too long to be of much use. Most of the land now belongs to the Government, and the difficulty of protecting it would probably grow less and less every year, until local dissatisfaction would disappear, when it could well be turned over to the State.

Knowing how much the welfare of a large population depends on this matter, I am in sympathy with any plan that will preserve the mountainous country in its natural state. Some game animals, now very rare and in danger of becoming extinct, might also be preserved. Formerly elk were abundant, but have been killed off. Horns of mountain sheep are sometimes found, but the last traces of live ones were seen about two years ago near Mount Whitney. There is nothing related to show that they have been killed, but the supposition entertained by many is that they have left the country on account of having been frightened by the proximity of sheep herders and having had their feed destroyed by bands of domestic sheep.

I renew my former recommendation that a competent surveyor be employed to mark the limits of the park. Only to-day I was asked

whether a certain mine were in the park. I could not answer the question, nor do I know who can. I also renew the recommendation that penalties be provided for violations of the regulations prescribed by the Secretary. As it becomes more widely known that I have no power to make arrests, and that owners of cattle can not be made to keep them out of the park, the difficulties of enforcing the regulations will be increased.

Men of the detachment of troops in the two southern townships have been in the saddle every day looking for and driving out cattle. This duty is accompanied with great physical exertion and fatigue, as the men must walk and lead their horses up and down all steep declivities and over rough places, at an altitude where the air is very light, and when the same cattle are driven out over and over again, with no effective result, the men get disheartened and look on their labor as drudgery.

During the last 2 months my troop, as an organization under my command, has marched about 277 miles, mostly in that portion of the park south of the Middle Fork of the Kaweah and east of the park.

A patrol under Sergeant Tully marched about 75 miles; one under Sergeant Adams, 75 miles; one under Corporal Donner, rounding up and driving off sheep, 130 miles; a patrol under Corporal Fureman, rounding up and driving off cattle, 156 miles; a patrol to Giant Forest and General Grant Park, by Lieutenant Nolan, 207 miles; by different details of the detachment in Hockett Meadows, 970 miles.

I inclose herewith, with a map, Lieutenant Nolan's report of his trip to the Giant Forest and General Grant Park. Also a map and two reports of Sergt. Patrick Dougherty, in charge of the detachment in Hockett Meadows.

I also inclose a memorandum showing the strength of the command.

Very respectfully, your obedient servant,

J. H. DORST,
Captain Fourth Cavalry,
Acting Superintendent Sequoia National Park.

R E P O R T
OF THE
MARITIME CANAL COMPANY OF NICARAGUA.

THE MARITIME CANAL COMPANY OF NICARAGUA,
44 Wall Street, New York, December 7, 1891.

SIR: In compliance with the requirements of its charter, I beg leave to hand you herewith the annual report of the Maritime Canal Company of Nicaragua to December 1, 1891.

I am, very obediently, yours,

THOMAS B. ATKINS,
Secretary.

The SECRETARY OF THE INTERIOR,
Washington, D. C.

ANNUAL REPORT OF THE MARITIME CANAL COMPANY OF NICARAGUA.

SIR: Pursuant to section 6 of the act of Congress entitled "An act to incorporate the Maritime Canal Company of Nicaragua," approved February 20, 1889, which provides that said company shall make a report on the first Monday of December in each year to the Secretary of the Interior, and, in accordance with the instructions received from you prescribing the form of such report and the particulars to be given thereby, the said Maritime Canal Company of Nicaragua hereby reports as follows:

First. That the regular annual meeting of the company was held at No. 44 Wall street, in the city of New York, on the 7th day of May, 1891, pursuant to the provisions of the by-laws, and that at such meeting Mr. Henry E. Howland was elected a director of said company, to fill the vacancy in the class of 1892 caused by the death of Mr. Frederick Billings, and Messrs. Alfred B. Darling, Charles C. Glover, Franklin Fairbanks, C. Ridgely Goodwin, and Alexander T. Mason were duly elected directors of said company, to fill the places made vacant by the class whose term of office expired on the said 7th day of May, 1891, and to serve for the period of three years, as provided for in the said act of incorporation. That since the said annual election the Hon. James B. Eustis has been elected a director, to fill the vacancy existing in the class of 1892 by reason of the death of the Hon. Joseph E. McDonald, who departed this life on the 21st day of June, 1891.

Second. That the board of directors of said company as now constituted is composed of the following stockholders:

Class of 1894.—Alfred B. Darling, Franklin Fairbanks, C. Ridgely Goodwin, and Alexander T. Mason:

Class of 1893.—James Roosevelt, Joseph Bryan, Hiram Hitchcock, Thomas B. Atkins, and Horatio Guzman (Nicaraguan director).

Class of 1892.—Charles P. Daly, Daniel Ammen, Horace L. Hotchkiss, Henry E. Howland, and James B. Eustis.

A majority of the above-named directors are citizens and residents of the United States. The vacancy in the class of 1894, caused by the resignation of Mr. Charles C. Glover, has not yet been filled.

Third. That at a meeting of the board of directors, held, pursuant to notice, on the said 7th day of May, 1891, at the office of the company, No. 44 Wall street, in the city of New York, the following officers were duly elected to serve for the ensuing year, to wit: President, Hiram Hitchcock; vice president, Charles P. Daly; secretary and treasurer, Thomas B. Atkins.

That all of the officers so elected are citizens and residents of the United States.

That at said meeting the following directors were elected members of the executive committee, as provided for in the by-laws of said company, to wit: James Roosevelt, chairman; Hiram Hitchcock, Horace L. Hotchkiss, C. Ridgely Goodwin, and Alexander T. Mason.

Fourth. That during the past year operations on the Nicaragua Canal have been prosecuted with due diligence and energy, and much progress has been made in the actual work of construction. Many of the accessory works referred to in the last annual report of this company as being then in progress have been extended and, in some cases, carried to a completion. The railroad which was under construction from the Atlantic port to the divide has been completed and fully equipped for a distance of 11 miles, and the same is now in operation. The grade of the road has been raised, a large number of culverts built, and the road-bed and track perfected and placed in first-class condition. Several miles of switches, side tracks, and turn-outs have also been constructed, and the rolling stock now consists of 4 locomotives, 50 cars, and other requisite appliances. The machine shops have been enlarged, and are now equipped with a useful and very valuable plant for making repairs, including a varied and extensive assortment of modern machinery and tools, and also with facilities which afford means for such other mechanical work as is necessary and incidental to the construction of the canal.

The jetty or breakwater, which is to protect the harbor entrance on the Atlantic coast from the effects of shifting sand, has been extended into the ocean to a distance of 1,000 feet or more, and the spaces between the piles are now being filled in with rock and hydraulic cement. A second breakwater has been commenced on the west side of the harbor for the protection of the same against northerly storms. Several of the large dredges which were purchased last year from the American Contracting and Dredging Company have been in active operation, and about 1 mile of actual excavation along the line of the canal has been made from the harbor inland, and a channel formed, varying in width from 150 to 230 feet, and being about 17 feet deep. Important work has also been done during the past year on the Machuca Rapids, and quantities of rock removed from the bed of the San Juan River at that point. On the west side of the lake, 8 miles of the route of the canal have been cleared of timber and undergrowth, and the line of the railroad which

is to extend from the lake to the Pacific has been carefully surveyed and located. The large plant owned by the company in Nicaragua has received many important additions during the past twelve months, and is in the very best condition. The buildings now occupied consist of five groups, covering an area of about one and three-fourths acres, as follows:

Headquarters, 8 buildings; floor space, 13,986 square feet. Hospitals, 10 buildings; floor space, 14,174 square feet. La Fe department, 8 buildings; floor space, 21,869 square feet. Railroad headquarters, 9 buildings; floor space, 18,778 square feet. Camp Cheney, 4 buildings; floor space, 7,100 square feet. Making a total of 39 buildings, having a floor space of 75,902 square feet. In addition to these are numerous and extensive wharves equipped for unloading heavy freights, sheds, water tanks, and other smaller structures.

The health of the employés of the company has been excellent, and the sanitary conditions of the various camps and headquarters has been maintained at the high standard of previous years. During fourteen months there have been admitted into headquarters hospital 1,669 patients, of which number there have been discharged cured or improved 1,646. The total number of deaths has been 23, of which 5 were due to accidents, 6 to chronic diseases contracted before entering the company's employ, and 12 to diseases contracted while in the employ of the company; so that out of 1,669 patients only 12, or seven-tenths of 1 per cent, have died from diseases that may be termed climatic.

In March, 1891, the Hon. Warner Miller, President of the Nicaragua Canal Construction Company, accompanied by a large staff, visited the Republic of Nicaragua, and made a complete and thorough examination of the entire line of the canal and of the numerous works connected with the construction thereof. The reports received from this expedition have been most gratifying, and show that the work already accomplished has been done in a systematic manner, with all possible care, thoroughness, and dispatch, and within the estimates of the engineers.

The results already achieved may be summarized as follows: The completion of the final surveys for location and construction; the restoration of the harbor of San Juan del Norte to the extent of securing an easy entrance to the port of vessels of 12 feet draft; the construction of extensive wharves and landing facilities; the erection of permanent buildings for offices, quarters, hospitals, storehouses, shops, etc., having an area of an acre and three-fourths; the building of a large number of temporary camps for the accommodation of employés; the completion of a telegraph line, placing the New York office in ready communication with every part of the work; the clearing of the canal line of timber for some 20 miles; the completion of the surveys and plans for the location and construction of the railroad systems; the acquisition by purchase of the most valuable and efficient dredging plant to be found anywhere in America under one management; and the actual excavation of the canal line for a distance of about 1 mile inland.

Fifth. That the interests of this company are at present represented in the Republic of Nicaragua by the Hon. Henry C. Hall, as resident agent at Managua, while Mr. Louis Chable represents the corporation in a similar capacity at San José, in the Republic of Costa Rica.

Sixth. That since the organization of the Maritime Canal Company of Nicaragua 10,145 shares of the capital stock of said company have been subscribed for at par, amounting in the aggregate to the sum of \$1,014,500, of which amount \$1,001,450 have been paid into the Treasury

in cash; that there has been paid into the Treasury from other sources about \$23,178.53, making the total amount of cash received \$1,024,628.53; that the other assets of the company consist of its capital stock; of the concessions, rights, privileges, and franchises which it now owns; and of the plant, equipment, materials, lands, buildings, structures, railways, steamboats, dredges, locomotives, cars, machinery, telephone and telegraph lines, tracks, sidings, turn-outs, warehouses, stores, machine shops, supplies, and other property in Central America, including the lands situated between the lake and the Pacific, which were purchased from the Government of Nicaragua for the route of the canal at the cost of \$50,000, in accordance with the provisions of the Nicaraguan concession.

Seventh. That since the organization of the company it has expended and-issued, for property, work and labor done, and materials furnished in the execution of the work of constructing the canal and in administration expenses, the sum of \$799,555.02 in cash and 28,000 shares of the full-paid capital stock of the company of the par value of \$2,800,000, and is obligated for \$6,000,000 of its first-mortgage bonds. It has also issued 180,000 shares of its capital stock of the par value of \$18,000,000 in payment for concessionary rights, privileges, franchises, and other property.

Eighth. That the liabilities of the company consist of the amounts still due under the concessions granted to the company; of the \$6,000,000 of bonds before mentioned, the said bonds being due to the Nicaragua Canal Construction Company for work and labor done and materials furnished in the execution of the work of constructing the interoceanic canal, and of cash liabilities outstanding and unpaid to an amount not exceeding \$30,000.

Ninth. That a detailed description of the proposed canal and the work to be accomplished in its construction, together with the maps showing the route thereof as the same has been finally located, was annexed to the last annual report of this company, to which reference is hereby made for said particulars.

In witness whereof the Maritime Canal Company of Nicaragua has caused its corporate seal to be hereunto affixed and these presents to be signed by its president and secretary this 7th day of December, A. D. 1891.

[SEAL.]

THE MARITIME CANAL COMPANY OF NICARAGUA,
By HIRAM HITCHCOCK,

President.

And THOS. B. ATKINS,

Secretary.

The SECRETARY OF THE INTERIOR.

STATE OF NEW YORK,

City and County of New York, ss:

On the 7th day of December, in the year 1891, before me personally came Thomas B. Atkins, known to me to be the secretary of the Maritime Canal Company of Nicaragua, and with whom I am personally acquainted, who, being by me duly sworn, did depose and say, that he resided in the city of New York; that he was the secretary of the Maritime Canal Company, of Nicaragua; that he knew the corporate seal of said company; that the seal affixed to the foregoing report was such

corporate seal; that it was so affixed by the order of the board of directors of said company, and that he signed his name thereto by the like order as secretary of the said company.

And the said Thomas B. Atkins further said that he was acquainted with Hiram Hitchcock and knew him to be the president of said company; that the signature of the said Hiram Hitchcock subscribed to the said instrument was in the genuine handwriting of the said Hiram Hitchcock, and was thereto subscribed by the like order of the said board of directors and in the presence of him, the said Thomas B. Atkins.

In witness whereof I have hereunto set my hand and official seal this 7th day of December, A. D. 1891.

[SEAL.]

JOHN R. O'HALLORAN,

Notary Public Kings County, certificate filed in New York County.

STATE OF NEW YORK,

City and County of New York, ss:

Hiram Hitchcock, being duly sworn, says: That he is the president of the said The Maritime Canal Company, of Nicaragua; that he has read the foregoing annual report and knows the contents thereof, and that the same is in all respects correct and true.

HIRAM HITCHCOCK.

Sworn to before me this 7th day of December, 1891.

[SEAL]

JOHN R. O'HALLORAN,

Notary Public Kings County, certificate filed in New York County.

STATE OF NEW YORK,

City and County of New York, ss:

Thomas B. Atkins, being duly sworn, says: That he is the Secretary of said The Maritime Canal Company of Nicaragua; that he has read the foregoing annual report and knows the contents thereof, and that the same is in all respects correct and true.

THOS. B. ATKINS.

Sworn to before me this 7th day of December, 1891.

[SEAL.]

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